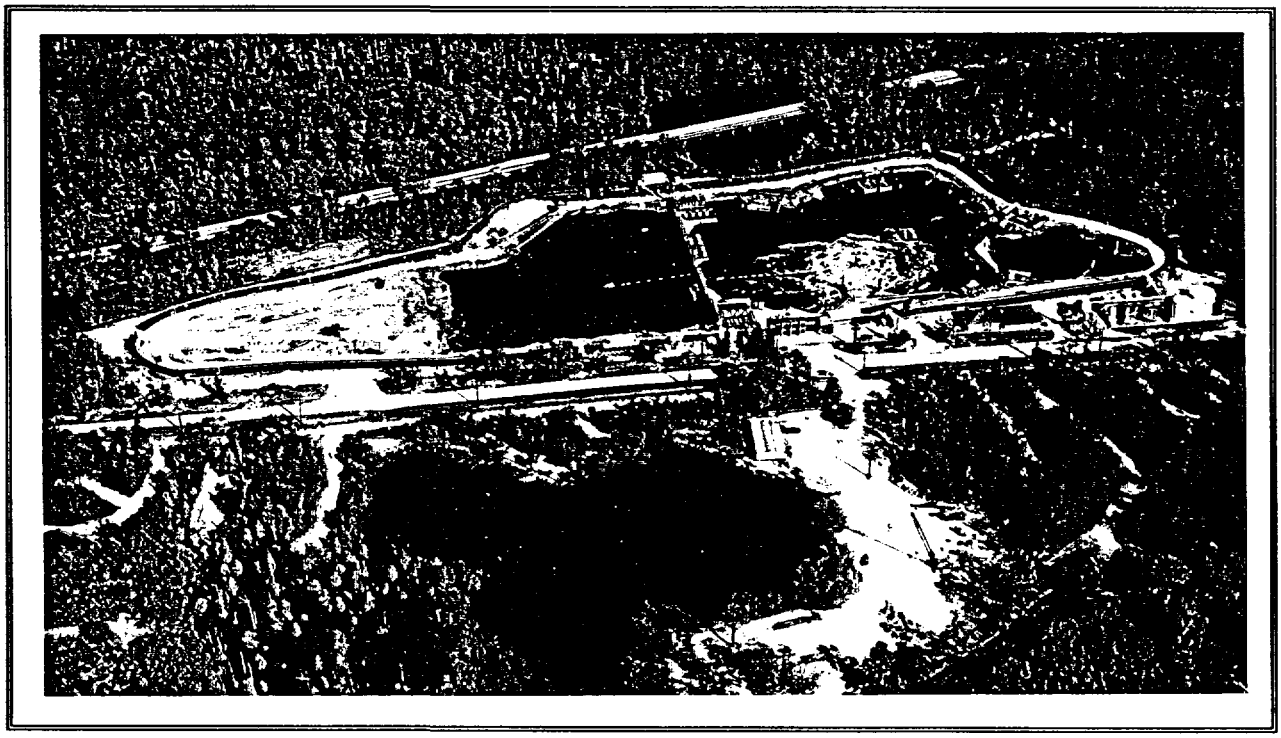
French Ltd. Project

FLTG, Inc.
Crosby, Texas

MONTHLY PROGRESS REPORT



Submitted to:

U.S. Environmental Protection Agency - Region 6
and
Texas Natural Resource Conservation Commission

January, 1995

058827

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Samples Dated January, 1995

Project I.D.	Date Received	Project I.D.	Date Received
M03A0292	1/13/95	M03A0298	1/27/95
M03A0293	1/13/95	M06C0022	1/27/95
M03A0294	1/15/95	M03A0299	1/30/95
M03A0296	1/19/95	M06B0067	1/30/95
M03A0295	1/19/95	M03A0300	1/31/95
M03A0297	1/23/95	S14K0011	1/31/95
M08D0013	1/25/95	S16B0029	1/31/95
M08C0010	1/26/95		

1.0 INTRODUCTION

This report covers the activities of FLTG, Inc. and the French Limited Project for January, 1995. FLTG, Inc. manages the project for the French Limited Task Group of Potentially Responsible Parties.

During January, 1995, the project team focused on the following activities and issues:

- Health, Safety, and Quality.
- Safety awareness.
- Contractor safety.
- HAZOP of daily work assignments.
- Detecting and correcting work place hazards.
- Response to changing site conditions.
- Treatment/handling options for Cell D water.
- Maintain DO, OUR, HMB, and plate count in Cell D.
- Vegetation evaluation in Cell E.
- Operation and maintenance of the aquifer remediation system.
- In-situ aquifer bioremediation.
- Riverdale property acquisition.
- Water treatment plant operation and maintenance.
- Operation of the data base management system.

- Wetlands project construction.
- This report includes:
    - A summary of January activities, issues, and progress.
    - Lagoon activities and issues.
    - Groundwater and Subsoil Remediation activities, issues, and progress.
    - Groundwater Treatment Plant activities and issues.
    - Ambient Air Management status.
    - QA/QC status and data.
    - Site management activities and issues.
    - Wetlands restoration activities, issues, and progress.

2

2.0 SUMMARY

2.1 Summary of Activities and Progress

2.1.1 Health and Safety

There were no personal injury incidents.

There were no equipment damage incidents.

All site workers earned the January safety bonus.

Conducted safety meetings and job inspections at the start of each shift; reviewed safety issues before starting all jobs.

All employees and contractors attended daily safety meetings.

Conducted daily mini-HAZOP of all specific jobs.

Supervision made 212 specific on-the-job safety contacts.

Emphasized wet, slippery conditions.

Inspected and certified all fire extinguishers.

Inspected all contractor equipment before on-site use.

Inspected all vendor delivery trucks before site entry.

Emphasized the hazards and precautions associated with working around moving equipment.

Conducted 32 specific health and safety inspections.

Logged all safety issues each shift; less than 24-hour response to all safety issues.

Replaced the daily lottery ticket safety awareness program with daily raffle ticket program; each regular site person is given 2 or 3 tickets (depending on shift length) at the start of each work shift; tickets can be lost to fellow workers for safety violations; at the end of the work shift, each person signs their name on each ticket and puts all the tickets in a locked box at the security office. A drawing is held each Monday morning, and the winner receives $100.00. A drawing is held at the monthly safety lunch for $200.00.

Conducted personnel exposure monitoring, and all results were within acceptable levels. The most recent results are in Table 2-1.

2.1.2 Quality/QAQC/Data Base Management

The total quality process was used. The status of the goals is shown on Table 2-2; exceeded the maintenance MH goal due to electrical work.

Raw data is being validated as per the plan.

The data base management system operated with no problems or delays.

There were no data or reports rejected due to errors.

Completed follow-up audit of AATS; all response actions have been completed.

American Analytical continued to provide data on time.

The treated water effluent continuously met criteria.

2.1.3 Lagoon

Maintained a high level of biological activity in Cell D; OUR and HMB were high. Added O_2 to Cell D using a downdraft aerator. Bottom profiles indicate low levels of soft biomass in Cell D.

Evaluated options for handling/treating Cell D water; subsurface injection in Cell E and F has potential.

Set up and started subsurface injection of Cell D water in Cell E and Cell F.

Continued evaluation of various tree and bush species for passive dewatering of the subsurface inside the floodwall.

Tested floodwall gate closure.

2.1.4 Ambient Air Management

Ambient air quality was manually checked daily with portable analyzers, and no response action was required.

Air quality was continuously monitored in all potential exposure areas and on all special jobs.

Time-integrated samples were collected in three work areas, and the results indicated no exposure; the data is shown in Table 2-1.

2.1.5 Aquifer Remediation

Monitored status of DNAPL plumes.

Continued routine S1 and INT oxygen and nutrient injection.

Continued to evaluate ways to increase INT remediation rates.

Started pressure fracturing the INT zone near low producing INT wells; sand, nutrients, and an oxygen source are being injected into the fractures; the initial results look encouraging.

Operated vacuum-enhanced pumping systems for INT wells.

Issued weekly well status and performance reports.

Inspected and adjusted all wells each day.

Continued daily maintenance of recovery and injection wells.

Completed monthly well measurements and sampling; TOC levels are still low.

Maintained O_2 content of injection water at about 40-45 ppm.

Continue pulse pumping in sections of the S1 zone South of Gulf Pump Road; the results continue to look positive.

Developing active remediation shut-off criteria. Evaluating various modeling approaches to develop specific compliance concentration levels at the compliance point.

2.1.6 Groundwater Treatment

The carbon blending system operated with no problems; the amount of effluent water requiring carbon treatment continued to decrease as the treatment plant influent water TOC decreased and as the biomass activity stabilized.

The water treatment plant operated 100% of the time.

The water treatment plant effluent data is shown in Table 2-3. The high total chlorinated hydrocarbons level on January 1, 1994, was due to surges in chlorinated hydrocarbons from the production wells.

TOC input to T-101 continued to decrease.

The process operators collected all the process water and ground water samples.

2.1.7 Wetlands Restoration

Continued site dewatering; it appears that some dewatering will be required after every significant rainfall.

Continued topsoil removal.

Continued excavation of flow channels; frequent wet weather delayed progress on site excavation.

Requested lump sum bids for the bridges.

Reviewed status, progress, and issues with the agency review committee.

2.1.8 Site Management and Issues

Used the on-site laboratory to process all the operational control samples.

Reviewed site progress and issues in detail with EPA and TNRCC on a regular basis.

Validated all analytical data as per the QAQC plan.

Reviewed project status and issues each day to ensure focus on critical issues - safety, quality and cost.

Issued weekly cost, schedule, and maintenance reports.

Reviewed progress on issues and action plans each week.

Reduced technical support MH's.

Implemented close-out of contracts and purchase orders as per the approved procedure.

TABLE 2-1

Ambient Air Management
Time Integrated Exposure Data

Compound	PEL 8 hour PPM	M01D005001 18-Jan-95 WTP Operator		M01D005002 18-Jan-95 Well Maintenance		M01D005003 18-Jan-95 Security	
		% of PEL	PPM	% of PEL	PPM	% of PEL	PPM
Chloromethane	50	0.000	0.000	0.000	0.000	0.000	0.000
Bromomethane	5	0.000	0.000	0.000	0.000	0.000	0.000
Vinyl chloride	1	0.000	0.000	0.000	0.000	0.000	0.000
Chloroethane	1000	0.000	0.000	0.000	0.000	0.000	0.000
Dichloromethane	50	0.000	0.000	0.001	0.001	0.000	0.000
Acetone	750	0.000	0.002	0.000	0.002	0.001	0.005
Carbon disulfide	10	0.000	0.000	0.000	0.000	0.000	0.000
1,1-Dichloroethene	5	0.000	0.000	0.000	0.000	0.000	0.000
1,1-Dichloroethane	100	0.000	0.000	0.000	0.000	0.000	0.000
trans-1,2-Dichloroethe	200	0.000	0.000	0.000	0.000	0.000	0.000
Chloroform	10	0.007	0.001	0.001	0.000	0.000	0.000
1,2-Dichloroethane	10	0.002	0.000	0.000	0.000	0.000	0.000
2-Butanone	200	0.003	0.005	0.000	0.000	0.000	0.001
1,1,1-Trichloroethane	350	0.000	0.000	0.000	0.000	0.000	0.000
Carbon Tetrachloride	5	0.002	0.000	0.001	0.000	0.001	0.000
Vinyl acetate	10	0.001	0.000	0.001	0.000	0.000	0.000
Bromodichloromethane			0.000		0.000		0.000
1,2-Dichloropropane	75	0.000	0.000	0.000	0.000	0.000	0.000
cis-1,3-Dichloropropen	1	0.000	0.000	0.000	0.000	0.000	0.000
Trichloroethene	50	0.000	0.000	0.000	0.000	0.000	0.000
Dibromochloromethane			0.000		0.000		0.000
1,1,2-Trichloroethane	10	0.000	0.000	0.000	0.000	0.000	0.000
Benzene	1	0.033	0.000	0.064	0.001	0.015	0.000
trans-1,3-Dichloroprop	1	0.000	0.000	0.000	0.000	0.000	0.000
2-Chloroethylvinyl ether			0.000		0.000		0.000
Bromoform	0.5	0.000	0.000	0.000	0.000	0.000	0.000
4-Methyl-2-pentanone	50	0.002	0.001	0.000	0.000	0.001	0.000
2-Hexanone	5	0.001	0.000	0.002	0.000	0.001	0.000
Tetrachloroethene	50	0.000	0.000	0.000	0.000	0.000	0.000
1,1,2,2-Tetrachloroet	1	0.000	0.000	0.008	0.000	0.000	0.000
Toluene	100	0.004	0.004	0.003	0.003	0.000	0.000
Chlorobenzene	10	0.000	0.000	0.000	0.000	0.000	0.000
Ethylbenzene	100	0.000	0.000	0.000	0.000	0.000	0.000
Styrene	50	0.000	0.000	0.000	0.000	0.000	0.000
Xylene (total)	100	0.000	0.000	0.000	0.000	0.000	0.000
Hexane			0.002		0.001		0.000

TABLE 2-2

Project Quality

Status as of 01/31/95		Goals	
Yes	1)	No OSHA recordable injuries.	
Attention	2)	100% compliance with all safety rules and procedures.	
Yes	3)	No citations for violations of applicable, relevant and appropriate regulations.	
Yes	4)	100% attendance (including subcontractors) at daily safety meetings.	
Attention	5)	Less than 24-hour response time on health and safety issues.	
Yes	6)	100% sign-in and security clearance.	
Yes	7)	No invalidation of reported data due to QA/QC issues.	
	8)	Spend less than:	MH/Month
Yes		• Direct hire	3,000
Yes		• FLTG management (5 people)	700
Yes/Attention		• Technical support (3 people)	600
Action		• Maintenance support	120
Yes	9)	Pump at least 140 gpm; inject at least 100 gpm.	
Yes	10)	Remediate shallow alluvial zone aquifer in 60 months.	
Yes	11)	Hold analytical cost to less than $20,000 per month (1994 only).	
Yes	12)	No unscheduled overtime (per day or per week).	
Yes	13)	No agency contacts which require 3rd party resolution.	
Yes	14)	Documented training of site personnel for all work assignments.	
Yes	15)	Weekly audit of actual performance versus goals.	

TABLE 2-3
Treated Water Results Summary

Collected	Set No.	pH (6-9)		TSS 5 PPM		TOC 55 PPM		O&G 15 PPM		Benzene 150 PPB		Chlor HC's 500 PPB		Total PCBs 0.65 PPB		Napthalene 300 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
3-Oct-94	M03A0276	7.36		1.		43.		2.5		2.5		593.		.16		5.	
6-Oct-94	M03A0277	7.44		1.		43.1		2.5		6.		230.		.16		5.	
10-Oct-94	M03A0278	7.61		1.		18.7		2.5		6.		310.		.16		5.	
13-Oct-94	M03A0279	7.28		1.		20.7		2.5		6.		380.		.16		5.	
3-Nov-94	CF-Out 1103	7.39		6.		23.1		2.5		2.5		14.		.16		5.	
14-Nov-94	M03A0282	7.4		9.		23.4		2.5		2.5		145.		.16		5.	
17-Nov-94	M03A0283	7.38		2.		37.3		2.5		2.5		611.		.16		5.	
21-Nov-94	M03A0284	7.27		4.		5.5		2.5		6.		423.		.16		5.	
24-Nov-94	M03A0285	7.26	7.38	4.	3.22	38.8	28.2	2.5	2.5	25.	6.56	1647.	484	.16	.16	5.	5.
28-Nov-94	M03A0286	7.24	7.36	.5	3.17	44.7	28.4	2.5	2.5	12.5	7.67	668.	492	.16	.16	5.	5.
1-Dec-94	M03A0287	7.4	7.36	1.	3.17	34.8	27.4	2.5	2.5	6.	7.67	526.	525	.16	.16	5.	5.
5-Dec-94	M03A0288	7.57	7.35	1.	3.17	28.5	28.5	2.5	2.5	6.	7.67	305.	524	.16	.16	5.	5.
8-Dec-94	M03A0289	7.52	7.38	1.	3.17	40.6	30.7	2.5	2.5	6.	7.67	480.	535	.16	.16	5.	5.
12-Dec-94	M03A0290	7.43	7.39	4.	2.94	33.	31.8	2.5	2.5	6.	8.06	342.	572	.16	.16	5.	5.
15-Dec-94	M03A0291	8.13	7.47	.5	2.	23.	31.8	2.5	2.5	6.	8.44	145.	572	.16	.16	5.	5.
19-Dec-94	M03A0292	7.96	7.53	1.	1.89	29.3	30.9	2.5	2.5	2.5	8.44	75.	512	.16	.16	5.	5.
22-Dec-94	M03A0293	7.91	7.6	4.	1.89	17.8	32.3	2.5	2.5	2.5	8.06	170.	484	.16	.16	5.	5.
26-Dec-94	M03A0294	7.68	7.65	10.	2.56	41.8	32.6	2.5	2.5	6.	5.94	353.	340	.16	.16	5.	5.
29-Dec-94	M03A0295	7.79	7.71	1.	2.61	15.4	29.4	2.5	2.5	2.5	4.83	205.	289.	.16	.16	5.	5.
2-Jan-95	M03A0296	7.78	7.75	4.	2.94	12.9	26.9	2.5	2.5	5.	4.72	275.	261	.16	.16	5.	5.
5-Jan-95	M03A0297	7.81	7.78	5.	3.39	19.	25.9	2.5	2.5	6.	4.72	249.	255	.16	.16	5.	5.
9-Jan-95	M03A0298	7.8	7.81	7.	4.06	9.8	22.4	2.5	2.5	2.5	4.33	124.	215	.16	.16	5.	5.
12-Jan-95	M03A0299	7.77	7.85	2.	3.83	9.8	19.9	2.5	2.5	2.5	3.94	200.	200	.16	.16	5.	5.
16-Jan-95	M03A0300	7.61	7.79	4.	4.22	18.3	19.3	2.5	2.5	6.	3.94	393.	227	.16	.16	5.	5.
19-Jan-95	M03A0301	7.44	7.73	2.	4.33	19.8	18.3	2.5	2.5	5.	4.22	454.	269	.16	.16	5.	5.
23-Jan-95	M03A0302	7.82	7.72	9.	4.89	35.5	20.3	2.5	2.5	6.	4.61	192.	272	.16	.16	5.	5.
26-Jan-95	M03A0303	7.66	7.72	.5	3.83	20.5	17.9	2.5	2.5	6.	4.61	234.	258	.16	.16	5.	5.
30-Jan-95	M03A0304	7.15	7.65	4.	4.17	44.3	21.1	2.5	2.5	25.	7.11	2326.	494	.16	.16	5.	5.
2-Feb-95	M03A0305	7.28															

Discharge sample of 17-Oct destroyed in flood.
Chlorinated hydrocarbons value is sum of detected concentrations of 21 volatile chlorinated hydrocarbons on target compound list.

TABLE 2-3 (Continued)
Treated Water Results Summary

Collected	Set No.	As		Ba		Cd		Cr		Cu		Pb		Mn		Hg		Ni		Se		Ag		Zn	
		150 PPB		200 PPB		50 PPB		500 PPB		15 PPB		66 PPB		300 PPB		1 PPB		148 PPB		20 PPB		5 PPB		162 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
3-Oct-94	M03A0276	13.		60.		1.3		2.5		3.		1.3		11.		.1		20.		1.3		2.5		9.	
6-Oct-94	M03A0277	14.		73.		1.3		2.5		3.		1.3		9.		.1		2.5		1.3		2.5		3.8	
10-Oct-94	M03A0278	11.		58.		1.3		2.5		3.		1.3		1.3		.1		1.3		1.3		2.5		10.	
13-Oct-94	M03A0279	10.		70.		1.3		2.5		2.5		1.3		3.		.1		2.5		1.3		2.5		3.8	
3-Nov-94	CF-Out 1103	46		32.		.1		5.		5.		.5		21.		.1		7.		1.3		.2		50.	
14-Nov-94	M03A0282	30.		12.		.1		.2		3.		.5		.1		.1		.1		1.2		.2		3.	
17-Nov-94	M03A0283	15.		51.		.1		2.		2.		.5		14.		.1		8.		1.2		.2		6.	
21-Nov-94	M03A0284	10.		50.		.1		.2		2.		.5		6.		.1		4.		1.2		.2		4.	
24-Nov-94	M03A0285	16.	18.3	79.	54	.1	.6	1.	2.	2.	2.8	.5	.8	27.	10.3	.1	.1	7.	5.8	1.3	1.2	.2	1.2	1.5	10.1
28-Nov-94	M03A0286	6.	17.6	115.	60	.1	.5	.2	1.8	2.	2.7	.5	.8	18.	11.	.1	.1	7.	4.4	1.3	1.2	.2	.9	6.	9.8
1-Dec-94	M03A0287	11.	17.2	109.	64	.1	.4	.5	1.6	1.	2.5	.5	.7	7.	10.8	.1	.1	10.	5.2	1.3	1.2	.5	.7	4.	9.8
5-Dec-94	M03A0288	12.	17.3	121.	71	.1	.2	1.	1.4	3.	2.5	1.	.6	19.	12.8	.1	.1	.9	5.2	1.3	1.2	.5	.5	9.	9.7
8-Dec-94	M03A0289	14.	17.8	128.	77	.1	.1	1.	1.2	.3	2.3	.5	.6	3.	12.8	.1	.1	10.	6.	1.3	1.2	.2	.2	3.8	9.7
12-Dec-94	M03A0290	7.	13.4	154.	91	.1	.1	7.	1.4	4.	2.1	.5	.6	9.	11.5	.1	.1	13.	6.7	1.3	1.2	.2	.2	5.	4.7
15-Dec-94	M03A0291	49.	15.6	92.	100	.1	.1	2.	1.6	.7	1.9	.5	.6	3.	11.8	.1	.1	1.	6.8	5.	1.7	.2	.2	5.	4.9
19-Dec-94	M03A0292	16.	15.7	93.	105	.1	.1	1.	1.5	1.	1.8	.5	.6	3.	10.6	.1	.1	2.	6.1	1.	1.6	.2	.2	4.	4.7
22-Dec-94	M03A0293	17.	16.4	130.	113	.1	.1	.2	1.5	1.4	1.7	.5	.6	2.	10.1	.1	.1	2.	5.9	1.3	1.6	.2	.2	1.5	4.4
26-Dec-94	M03A0294	11.	15.9	161.	121	.1	.1	.2	1.4	1.8	1.7	.5	.6	9.	8.1	.1	.1	4.	5.5	1.3	1.6	.2	.2	6.	4.9
29-Dec-95	M03A0295	18.	17.2	114.	121	.2	.1	1.	1.5	1.	1.6	.5	.6	4.	6.6	.1	.1	3.	5.1	5.	2.1	.2	.2	4.	4.7
2-Jan-95	M03A0296	9.9	18.3	172.	140	.1	.1	2.1	1.8	1.6	1.8	.5	.6	18.	8.6	.1	.1	1.	5.2	1.2	2.2	.2	.2	7.	5.5
5-Jan-95	M03A0297	14.	18.7	151.	145	.1	.1	3.	2.	2.	1.9	.5	.6	57.	14.1	.1	.1	6.	4.8	1.2	2.2	.2	.2	20.	7.3
9-Jan-95	M03A0298	12.	18.7	171.	151	.1	.1	.9	2.	3.	1.9	.5	.6	23.	14.6	.1	.1	4.	5.1	1.3	2.2	.2	.2	7.	7.
12-Jan-95	M03A0299	16.	18.9	143.	152	.1	.1	.2	1.9	2.	2.1	.5	.6	2.	14.4	.1	.1	2.	4.2	1.3	2.2	.2	.2	3.	6.9
16-Jan-95	M03A0300	12.	19.4	146.	151	.1	.1	.6	1.2	3.	1.9	.5	.6	1.	13.6	.1	.1	3.	3.1	1.3	2.2	.2	.2	6.	7.1
19-Jan-95	M03A0301	18.	16.	135.	156	.1	.1	.4	1.1	2.	2.1	.5	.6	2.	13.4	.1	.1	4.	3.4	1.3	1.8	.2	.2	18.	8.5
23-Jan-95	M03A0302	12.	15.5	140.	161	.1	.1	.2	1.	2.	2.2	.5	.6	3.	13.4	.1	.1	6.	3.9	1.3	1.8	.2	.2	16.	9.8
26-Jan-95	M03A0303	16.	15.4	148.	163	.1	.1	.2	1.	2.	2.3	.5	.6	2.	13.4	.1	.1	2.	3.9	1.3	1.8	.2	.2	12.	11.
30-Jan-95	M03A0304	9.	15.2	238.	173	.1	.1	.2	1.	2.	2.3	.5	.6	43.	17.2	.1	.1	3.	3.8	1.3	1.8	.2	.2	5.	10.9

Discharge sample of 17-Oct destroyed in flood.
Metals values in PPB.

2.2 Problem Areas and Recommended Solutions

Problem	Solution
Maintain high level of safety awareness.	Revise daily safety awareness program. Daily safety meetings. Supervisory safety contacts.
On-the-Job safety attention.	Contact all employees at least twice per day on safety issues. Review job details as work proceeds. Stop and challenge approach.
Hazard detection and response.	Safety inspections. HAZOP's on all jobs.
Lagoon remediation confirmation.	Submit combined Cell E/Cell D/F bottom sampling data report.
Low flow in some INT pumping and injection wells.	Vacuum enhanced pumping. Increase injection pressure in some areas. Pressure fracture INT zone in selected areas.
Slow progress on wetlands excavation.	Adjust work schedules when having wet weather; flexible field work plan.
Chlorinated hydrocarbons in treated water.	Adjust and balance flows from selected wells.
Increase INT zone remediation rate.	Increase pumping and injection rates.
Cell D water handling.	Inject in Cell E subsurface.

2.3 Problems Resolved

None.

2.4 Deliverables Submitted

December, 1994 monthly report.

2.5 Upcoming/Ongoing Events and Activities

Daily safety meetings and inspections.

Daily safety awareness program.

Emphasis on multiple work assignments.

Emphasis on hazard identification and response.

Attention to safety details.

Respond to HAZOP audits.

Pressure fracturing of west end INT zone.

Daily well pump checks and maintenance.

Aquifer compliance testing in select areas and zones.

Operate S1 and INT wells for expedited in-situ bioremediation.

Ship surplus equipment.

Injection of Cell D water.

Evaluate vegetation in Lagoon area; plant several alternative types.

Operate Data Base Management System.

Total Quality process.

Continue biological activity monitoring in S1 wells and INT wells.

Issue permeability results of INT-11 area containment wall tests.

Developed and issued aquifer compliance sampling plan and compliance criteria modeling plan.

Continue QA/QC data confirmation.

Optimize carbon usage in Water Treatment Plant.

Develop lagoon closure plan.

Submit MCC-1 area remediation report.

Continue wetlands restoration project.

2.6 Key Staffing Changes

None.

2.7 Percent Complete

Research & Development	- 98%
Facilities	- 100%
Slough	- 100%
Subsoil Investigation	-100%
Floodwall	-100%
Lagoon Remediation	-100%
Groundwater	- 75%
Lagoon Dewatering/Fixation	- 100%
Water Treatment	- 72%
Wetlands	- 50%
Demobilization	- 65%
Monitoring	- 58%

2.8 Schedule

All deliverables are on schedule.

Complete active aquifer remediation by January 1, 1996.

2.9 Operations and Monitoring Data

The operations and monitoring data are submitted as parts of Sections 3.0, 4.0, 5.0, and 6.0 of this report, and the supporting data are stored in secure storage at the French project office.

2.10 Credits Accrued/Applied

Status of Credits

	Accrued this period	Accrued to date	Applied this period	Applied to date	Running total
December 1990	34	34	0	0	34
December 1991	0	100	0	0	100
December 1992	0	101	0	2	99
December 1993	0	104	0	4	100
January 1994	0	104	0	4	100
February 1994	0	104	0	4	100
March 1994	0	104	0	4	100
April 1994	0	104	0	4	100
May 1994	0	104	0	4	100
June 1994	0	104	0	4	100
July 1994	5	109	0	4	105
August 1994	0	109	0	4	105
September 1994	0	109	0	4	105
October 1994	0	109	0	4	105
November 1994	0	109	0	4	105
December 1994	0	109	0	4	105
January 1955	0	109	0	4	105

2.11 Community Relations

Maintained 24-hour, call-in Hot Line.

Conducted three site tours for interested parties.

Contacted nearby local residents with update on site activities.

Contacted several Riverdale residents with site status report.

3

3.0 LAGOON

3.1 Summary of Activities

Evaluated test plots of various plants in Cell E; the Cypress and River Birch are stressed by lack of water. Planted a test plot of Oleanders. Evaluating a drip irrigation system.

Injected about 450,000 gallons of "clean" Cell D water in Cell E subsurface.

Operated aerator in Cell D to expedite biomass degradation.

Evaluating various options for gradient control inside the lagoon.

3.2 Problems and Response Action

Problem	Recommended Solution
Ground cover growth slow in Cell E.	Hydroseed a rye grass blend. Water frequently. Evaluate different grass blends.
Poor tree growth in Cell E.	Evaluate different types of trees. Design an irrigation system.
Treat Cell D water.	Test subsurface injection.

3.3 Problems Resolved

None.

3.4 Deliverables Submitted

None.

3.5 Upcoming Events and Activities

Maintain pH, DO, OUR, and nutrient levels in Cell D.

Operate aerator/mixer in Cell D.

Inject Cell D water in Cell E subsurface.

Hydroseed Cell E and Cell F as required.

Maintain vegetation in Cell E.

Plant cottonwood trees in Cell E as a test.

Plant several types of trees in Cell E.

4.0 GROUNDWATER AND SUBSOIL REMEDIATION

4.1 Summary of Activities

4.1.1 Operation of Production and Injection Well Systems

Operation of the production and injection wells systems during January 1995 is summarized in Table 4-1. Flows from the production well system are summarized in Table 4-2 and Figure 4-1. Flows into the injection well system are summarized in Table 4-3 and Figure 4-2. Individual well flows are summarized in Table 4-4. S1-1 through S1-16 were shut down in late December to reduce chlorinated hydrocarbon into the GWT plant. S1-1 through S1-9 were converted to injection wells for the disposal of Cell D water and provide a higher water table for the lagoon vegetation.

4.1.2 Operational Monitoring

Operational monitoring associated with the groundwater and subsoil remediation system during January 1995 is summarized in Table 4-5. Results of the annual groundwater sampling event in December are being received from the laboratory at this time.

4.1.3 Data Management and Evaluation

Operational monitoring data from the groundwater and subsoil remediation system for this reporting period were entered into FLTG's database. Tables and figures for this section of the Monthly Progress Report were generated from this database.

4.2 Problems and Response Actions

Groundwater production and injection rates were above target. Nutrient and dissolved oxygen concentrations in injection water were at or close to target levels. No specific response action is planned.

Table 4-1

Groundwater System Operation - January 1995 *Reporting Period: December 27 (29 days) - January 30 (33 days)*
Production System
No. of production wells: 109 (S1 unit, 53; INT unit, 56) No. of operational wells by end of month: 83 (S1 unit, 27; INT unit, 56)
Changes in system since last month: converted S1-1 thru S1-9 to injection wells for Cell D water
No. of wells off line having reached criteria: 9 S1-1 thru S1-16 off line No. of wells on pulse pumping schedule: 10 (S1-45 not metered) No. of wells producing DNAPL: 0
Groundwater produced: 8.3 M gal; 236.1 M gal since startup based on main meter Total production rate: avg. 152 gpm (target 140 gpm); range 121-179 gpm S1 production rate: avg. 89 gpm; avg. 3.2 gpm per metered well INT production rate: avg. 63 gpm; avg. 1.2 gpm per metered well Total flow rate apportioned between S1 and INT units based on individual well meter readings; average flows based on 33 days operation
TOC (non-volatile) concentration avg. 38 ppm; range 24 - 66 ppm TOC mass removed: 2,630 lb. (362,385 lb. since startup); 80 lb./day
Injection System
No. of injection wells: 59 (S1 unit, 17; INT unit, 42)
Rainfall during period: not recorded; climate station damaged in October flood
Changes in system since last month: none
Groundwater injected: 7.4 M gal (127.7 M gal since startup) based on main meters
S1 unit injected: 3.8 M gal (71.9 M gal since startup) INT unit injected: 3.6 M gal (60.4 M gal since startup) Total injection rate: avg. 148 gpm (target 100 gpm); range 120 - 155 gpm S1 injection rate: avg. 73 gpm; avg. 4.0 gpm per well INT injection rate: avg. 75 gpm; avg. 1.8 gpm per well Total flow rate apportioned between S1 and INT units based on individual well meter readings; average flows based on 29 days operation
Oxygen added to injection water: 9,787 lb.; 297 lb./day used (input efficiency = 23%) Avg. DO in injection water: S1, 37.7 ppm; INT, 56.9 ppm (target 40 ppm) ⇒ 66.1 lb./day injected
Volume of 9.1% w/w KNO_3 nutrient solution added to INT unit, and S1-North wells: 13,981 gal Nutrient flow rate: 411 gpd, 0.32% of INT + S1-North inflow rate (target 0.38%) Calculated injection water NO_3 concentration: 41.5 mg/L-N (target 50 mg/L-N)

Note that average monthly flow rates at individual wells (calculated from weekly individual well flow meter readings) are not used directly to determine S1 and INT unit inflows and outflows, but are used to apportion total production and injection flows (calculated from daily main production and injection meter readings) between S1 and INT units. Average flows are based on the 29 day reporting period.

Table 4-2

Daily Groundwater Production and TOC Removal
January 1995

Date	Project Day	T-101 Outflow Rate (FQ-101A) (gpd)	T-101 Outflow Rate (gpm)	T-101 Influent Ave. TOC (mg/L)	T-101 Influent TOC Loading (kg/day)
28-Dec	1085	220,500	153	29	24
29-Dec	1086	219,400	152	25	21
30-Dec	1087	227,000	158	26	22
31-Dec	1088	247,100	172	25	23
1-Jan	1089	243,400	169	26	24
2-Jan	1090	245,100	170	24	22
3-Jan	1091	241,200	168	30	27
4-Jan	1092	233,900	162	30	27
5-Jan	1093	230,500	160	45	39
6-Jan	1094	226,400	157	32	27
7-Jan	1095	220,300	153	30	25
8-Jan	1096	216,600	150	27	22
9-Jan	1097	219,800	153	24	20
10-Jan	1098	226,500	157	29	25
11-Jan	1099	234,000	163	27	24
12-Jan	1100	228,600	159	29	25
13-Jan	1101	215,000	149	27	22
14-Jan	1102	227,200	158	27	23
15-Jan	1103	225,200	156	26	22
16-Jan	1104	211,400	147	31	25
17-Jan	1105	216,300	150	32	26
18-Jan	1106	223,100	155	32	27
19-Jan	1107	226,400	157	31	27
20-Jan	1108	201,500	140	33	25
21-Jan	1109	204,000	142	29	22
22-Jan	1110	210,600	146	30	24
23-Jan	1111	212,100	147	38	31
24-Jan	1112	222,400	154	29	24
25-Jan	1113	223,400	155	49	41
26-Jan	1114	244,600	170	44	41
27-Jan	1115	299,700	208	49	56
28-Jan	1116	275,100	191	65	68
29-Jan	1117	258,200	179	65	64
30-Jan	1118	248,000	172	66	62
Month Average		230,132	160	34	30
Month Total		7,824,500			1,028

Table 4-3

Daily Injection Flows
January 1995

Date	Project Day	INT South INT-90/100 S1 North Injection Wells FQ905		INT North (not INT-90/100) Injection Wells Meter FQ-906		S1 South Injection Wells Meter FQ-909		Total Injection Rate		Oxygen	Nutrients
		(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	lbs	Gallons
28-Dec	1085	66,200	46	28,300	20	98,700	69	193,200	134	260	420
29-Dec	1086	68,200	47	28,500	20	92,700	64	189,400	132	0	435
30-Dec	1087	57,500	40	28,900	20	110,700	77	197,100	137	260	454
31-Dec	1088	57,100	40	29,300	20	109,200	76	195,600	136	280	461
1-Jan	1089	54,600	38	28,700	20	104,600	73	187,900	130	280	431
2-Jan	1090	54,700	38	29,000	20	101,700	71	185,400	129	320	439
3-Jan	1091	52,200	36	28,300	20	97,400	68	177,900	124	320	470
4-Jan	1092	53,400	37	27,300	19	92,100	64	172,800	120	296	466
5-Jan	1093	58,800	41	28,000	19	88,800	62	175,600	122	429	409
6-Jan	1094	64,000	44	27,600	19	87,700	61	179,300	125	357	413
7-Jan	1095	63,000	44	27,700	19	87,000	60	177,700	123	300	439
8-Jan	1096	61,100	42	27,400	19	82,300	57	170,800	119	300	435
9-Jan	1097	61,400	43	27,900	19	93,900	65	183,200	127	300	430
10-Jan	1098	59,500	41	26,800	19	110,100	76	196,400	136	300	441
11-Jan	1099	59,500	41	27,800	19	112,600	78	199,900	139	340	448
12-Jan	1100	59,000	41	28,100	20	107,800	75	194,900	135	0	448
13-Jan	1101	55,300	38	26,900	19	114,100	79	196,300	136	360	330
14-Jan	1102	60,800	42	27,400	19	115,600	80	203,800	142	320	379
15-Jan	1103	61,700	43	27,500	19	116,500	81	205,700	143	180	394
16-Jan	1104	60,500	42	26,400	18	111,500	77	198,400	138	335	405
17-Jan	1105	63,100	44	27,000	19	115,600	80	205,700	143	400	417
18-Jan	1106	61,700	43	27,000	19	114,100	79	202,800	141	299	383
19-Jan	1107	61,600	43	28,600	20	110,600	77	200,800	139	196	405
20-Jan	1108	61,500	43	28,900	20	106,700	74	197,100	137	160	398
21-Jan	1109	61,700	43	27,600	19	111,300	77	200,600	139	300	307
22-Jan	1110	64,600	45	27,200	19	111,400	77	203,400	141	300	382
23-Jan	1111	66,100	46	28,100	20	114,300	79	208,500	145	200	399
24-Jan	1112	65,400	45	27,500	19	113,600	79	206,500	143	400	429
25-Jan	1113	65,300	45	27,600	19	112,700	78	205,600	143	380	416
26-Jan	1114	65,900	46	27,800	19	111,900	78	205,600	143	320	394
27-Jan	1115	65,800	46	27,600	19	109,400	76	202,800	141	275	383
28-Jan	1116	64,700	45	27,800	19	109,500	76	202,000	140	300	338
29-Jan	1117	63,600	44	29,200	20	110,100	76	202,900	141	420	386
30-Jan	1118	62,200	43	29,700	21	108,900	76	200,800	139	300	397
Month Average		61,232	43	27,924	19	105,738	73	194,894	135	288	411
Month Total		2,081,900		949,400		3,595,100		6,626,400		9,787	13,981

Table 4-4

Average Production and Injection Flow Rates - January, 1995

Flow rates are averages for the period December 28 -January 30 (34 days)

S1 Production Wells (63)

Well ID	gpm
S1-1	OFF
S1-2	OFF
S1-3	OFF
S1-4	OFF
S1-5	OFF
S1-6	OFF
S1-7	OFF
S1-8	OFF
S1-9	OFF
S1-10	OFF
S1-11	OFF
S1-12	NM
S1-13	NM
S1-14	OFF
S1-15	OFF
S1-16	OFF
S1-17	1.0
S1-18	1.6
S1-19	1.0 PP
S1-20	2.0
S1-21	6.2
S1-22	0.8
S1-23	OFF
S1-24	2.8 PP
S1-25	2.4
S1-26	6.1
S1-27	1.3
S1-28	4.5
S1-29	1.8
S1-30	5.0
S1-31	1.6 PP
S1-32	3.2
S1-33	OFF
S1-34	OFF
S1-35	OFF
S1-36	OFF
S1-37	OFF
S1-38	OFF
S1-39	7.4
S1-40	10.2
S1-41	3.9 PP
S1-42	OFF
S1-43	OFF
S1-44	3.0 PP
S1-45	NM
S1-46	11.6 PP
S1-47	0.9 PP
S1-48	1.7 PP
S1-60	2.8 PP
S1-61	0.3
S1-62	3.5
S1-63	1.5
S1-64	0.8
Total	88.8
Average*	3.3

* of metered wells

S1 Injection Wells (17)

Well ID	gpm
S1-49	1.3
S1-50	1.7
S1-51	0.2
S1-52	1.3
S1-53	1.7
S1-54	OFF
S1-55	2.5
S1-56	3.8
S1-57	2.7
S1-58	OFF
S1-59	3.3
S1-65	4.7
S1-66	4.2
S1-67	3.3
S1-68	4.6
S1-69	3.4
S1-70	3.1
Total	41.8
Average	2.8

Wells S1-58, 59, 65, 66, 67, 68, 69, and 70 receive oxygen- and nutrient-amended injection water

Subtotal	28.6

All other S1 wells receive oxygenated injection water only

Notes
OFF - well inoperative
NM - well running but not metered
PP - well in pulse pumping mode

INT Production Wells (56)

Well ID	gpm
INT-1	1.4
INT-2	0.6
INT-3	0.1
INT-4	0.3
INT-5	0.5
INT-6	0.3
INT-7	0.2
INT-8	1.2
INT-9	1.1
INT-10	3.4
INT-11	0.5
INT-12	1.6
INT-13	0.4
INT-14	0.2
INT-15	0.7
INT-16	0.2
INT-17	0.1
INT-18	0.5
INT-19	0.5
INT-20	0.1
INT-21	0.3
INT-22	0.3
INT-23	0.1
INT-24	0.4
INT-25	0.4
INT-26	0.4
INT-27	1.6
INT-28	0.4
INT-29	3.4
INT-30	1.0
INT-31	1.7
INT-32	0.8
INT-33	0.2
INT-55	1.8
INT-56	0.4
INT-57	1.0
INT-58	3.1
INT-59	0.3
INT-60	1.8
INT-61	1.3
INT-62	0.6
INT-65	NM
INT-66	0.7
INT-205	1.6
INT-206	0.6
INT-207	0.7
INT-208	3.7
INT-209	0.3
INT-210	3.2
INT-211	NM
INT-212	1.7
INT-213	2.0
INT-214	5.2
INT-215	NM
INT-216	0.5
INT-217	8.0
Total	63.3
Average	1.2

INT Injection Wells (42)

Well ID	gpm
INT-63	0.0
INT-64	3.2
INT-71	2.5
INT-72	0.7
INT-73	0.3
INT-74	1.1
INT-75	0.7
INT-76	2.1
INT-77	3.8
INT-78	3.8
INT-79	0.5
INT-80	0.7
INT-81	4.3
INT-82	0.7
INT-83	0.4
INT-84	0.8
INT-85	0.8
INT-86	1.0
INT-87	0.6
INT-88	1.2
INT-89	0.8
INT-90	4.1
INT-91	1.7
INT-92	2.6
INT-93	0.8
INT-94	0.8
INT-95	1.1
INT-96	1.8
INT-97	0.8
INT-98	0.9
INT-99	2.6
INT-100	0.0
INT-201	1.0
INT-202	0.6
INT-203	0.9
INT-204	1.5
INT-218	1.1
INT-219	1.0
INT-220	1.5
INT-221	0.6
INT-222	2.5
INT-223	0.7
Total	58.5
Average	1.4

All INT injection wells receive oxygen- and nutrient-amended injection water

Note: total and average flow rates for S1 and INT units are corrected (per main flow meter readings) for use in Table 4-1.

Table 4-5

Operational Monitoring - January 1995

Activity	Frequency	Purpose
Check production and injection wells for pump, meter, and level control operation, injection pressure, gas buildup, and flow meter readings.	Weekly	Identify and respond to individual well problems; maintain operating efficiency.
Read groundwater treatment plant inflow and outflow meters; nutrient injection flow meters; oxygen flows, pressure and temperature; and injection header back pressure.	2x daily	Identify and respond to treatment plant problems; control nutrient and injection flow rates.
Measure T-101 influent TOC.	2x daily	Track TOC removal.
Measure dissolved oxygen at 11 representative S1 and INT injection wells	Weekly	Control oxygen injection.
Sample T-101 influent for VOC, TOC, and nutrient analysis, (1) from all operating production wells, and (2) from all wells located outside the floodwall.	Monthly	Develop chemical mass balance.
Sample groundwater at 109 monitoring wells; measure water levels before sampling; perform on-site TOC and DO analysis.	Annual/ Monthly	Annual plume definition; track TOC removal; monitor development of aerobic conditions.

Figure 4-1

Production Flows

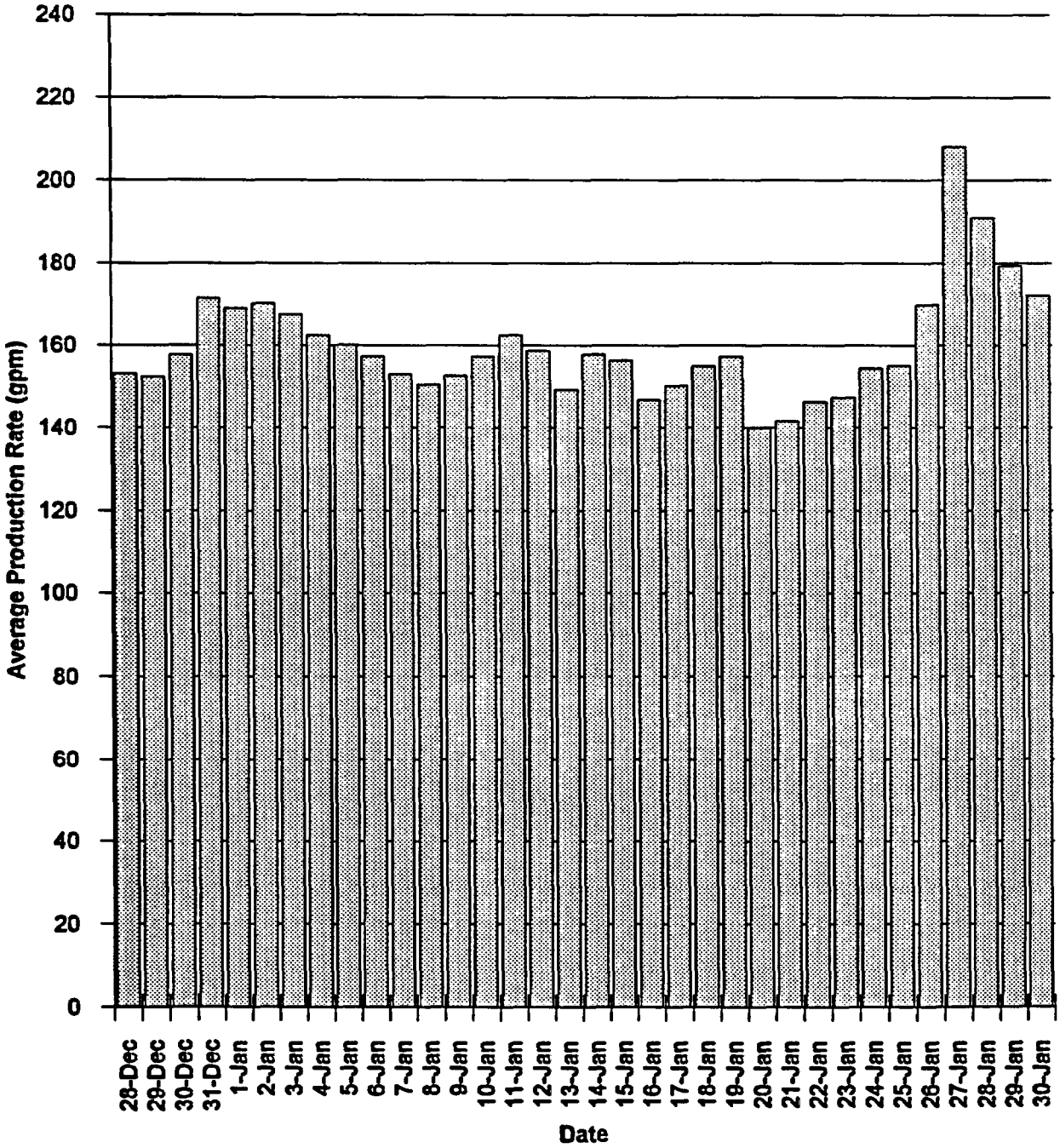
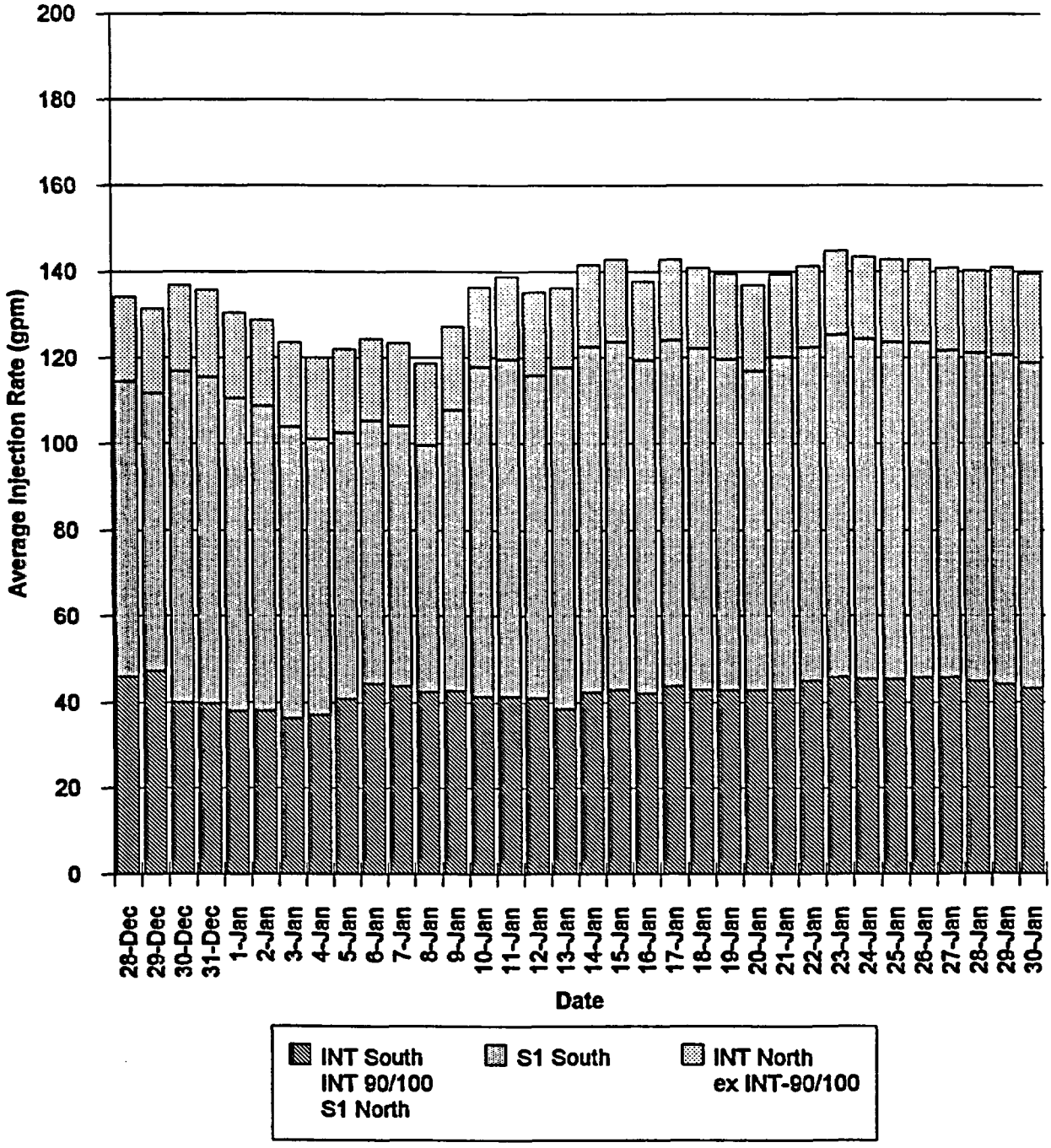
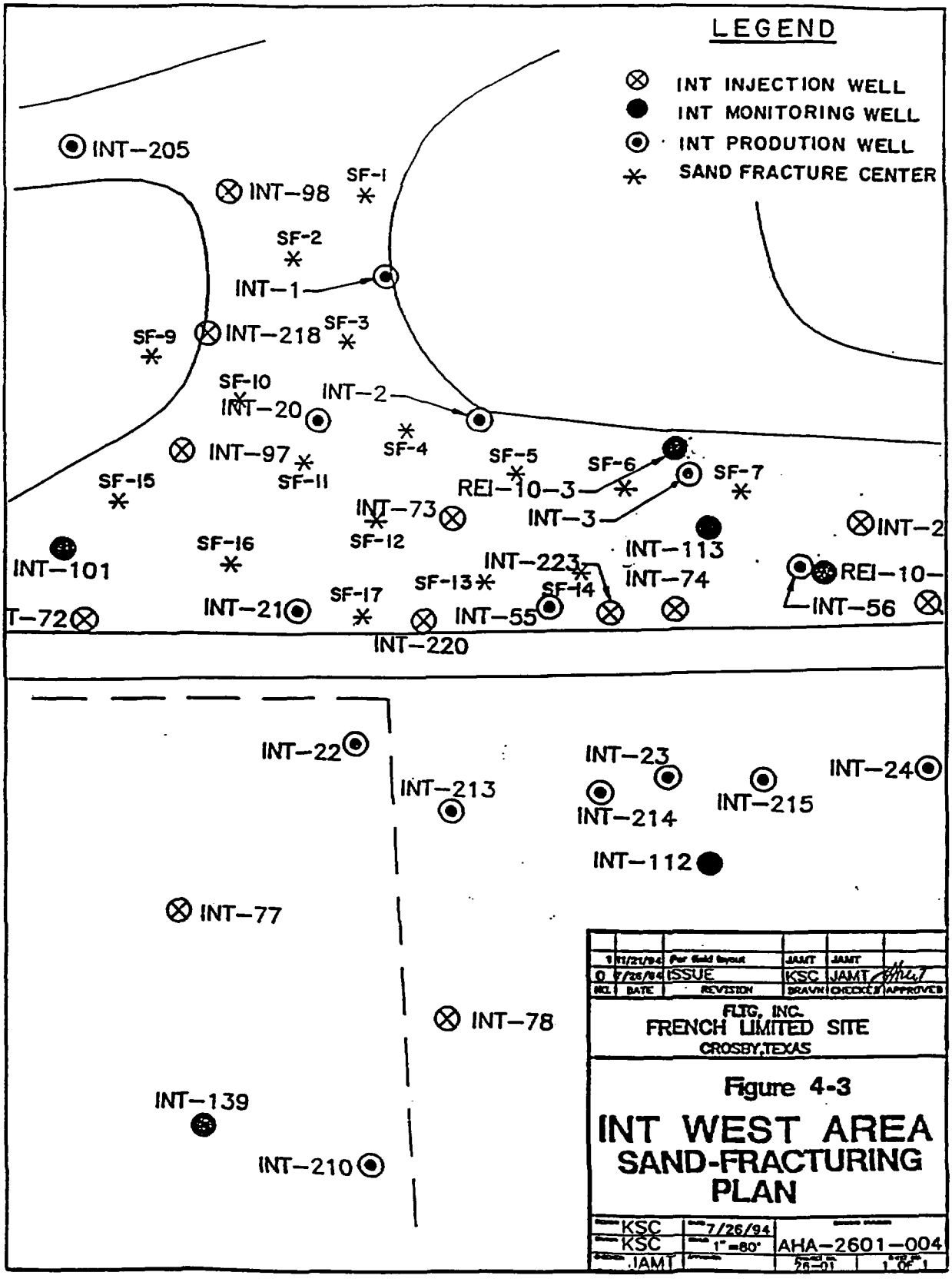


Figure 4-2

Injection Flows




LEGEND
INT INJECTION WELL
INT MONITORING WELL
INT PRODUTION WELL
SAND FRACTURE CENTER
INT-205
INT-98
SF-1
SF-2
INT-1
SF-9
INT-218
SF-3
SF-10
INT-20
INT-2
INT-97
SF-4
SF-5
SF-6
SF-7
SF-15
SF-11
REI-10-3
INT-73
INT-3
SF-12
INT-113
INT-2
INT-101
SF-16
INT-223
INT-74
REI-10-
SF-13
SF-14
SF-17
INT-21
INT-55
INT-56
T-72
INT-220
INT-22
INT-213
INT-23
INT-24
INT-214
INT-215
INT-112
INT-77
INT-78
INT-139
INT-210
FLTG, INC.
FRENCH LIMITED SITE
CROSBY, TEXAS
Figure 4-3
INT WEST AREA
SAND-FRACTURING
PLAN
KSC
KSC
JAMT
7/26/94
1"=80'
AHA-2601-004

4.3 Pending Issues

4.3.1 DNAPL Response

During January, work continued on evaluating the INT-11 DNAPL cutoff wall permeability certification testing results. Responses are being developed to the CH2M Hill comments on the DNAPL FS report.

4.3.2 S1 Unit Pulse Pumping

Pulse pumping continued at wells S1-19, -24, -31, -40, -41, -44, -45, -46, -47, -48, and -60.

4.3.3 Phreatophytes

Cypress and river birch are not thriving; willow and cottonwood have been ordered. Planting date is scheduled for February 8 and 9.

4.4 Operational Refinements

A program of hydrofracturing with sand and nutrient injection started on January 3, 1995. Sand fracturing will be performed at 16 centers in the close west end area (see Figure 4-3). The purpose of this program is to accelerate nutrient delivery and contaminant attenuation in this part of the INT unit by increasing permeability. At the end of this reporting period, 10 fractures have been completed with positive results to-date.

4.5 Data Summary and Discussion

4.5.1 Groundwater Production and Injection

Groundwater production and injection rates were above target.

4.5.1 Groundwater Levels and Flow Directions

The current extent of contaminated groundwater is contained within the S1 and INT extraction system capture zones.

Water levels were measured at monitoring wells on January 5, 1995. Contour maps will be presented on a quarterly basis in this operation year; the contour maps will be in the March, June, September, and December monthly reports.

4.5.3 TOC in shallow groundwater

TOC analyses on production wells were completed the first week in January. The analyses are in Table 4-6. The overall average TOC level continues to drop. Contour maps will be presented quarterly for this reporting year.

4.5.4 In-Situ Bioremediation

No major changes in in-situ bioremediation system operation were made in January. The emphasis continues to be to maximize delivery of oxygen and nutrients to the INT system.

4.6 Schedule

In February: 45 phreatophytes will be planted in Cells E and F. Tree varieties are enclosed as Attachment A.

Table 4-6

HISTORY OF TOC CONCENTRATIONS
AT S1 PRODUCTION WELLS

Well ID	Baseline Nov-Dec 91 (ppm)	Maximum Feb-Dec 92 (ppm)	Max 1993 (ppm)	Avg 1993 (ppm)	Min 1993 (ppm)	Jan 1994 (ppm)	Feb 1994 (ppm)	Mar 1994 (ppm)	Apr 1994 (ppm)	May 1994 (ppm)	June 1994 (ppm)	July 1994 (ppm)	Aug 1994 (ppm)	Sep 1994 (ppm)	Oct 1994 (ppm)	Nov 1994 (ppm)	Dec 1994 (ppm)	Jan 1995 (ppm)
S1-1	290	475	910	634	390	1,025	1,150	1,317	941	971	1,360	970	850	1,133	1,080	1,215	NS	1,592
S1-2	190	796	1,204	832	460	1,037	909	1,510	982	1,120	1,139	1,100	1,130	1,251	1,048	NS	NS	1,044
S1-3	370	1,071	1,610	862	384	1,090	1,120	1,037	793	783	755	760	670	666	692	750	NS	624
S1-4	47	866	1,044	786	560	848	1,300	1,025	676	669	668	420	552	620	552	576	NS	582
S1-5	51	646	950	714	548	1,079	624	1,151	655	583	473	NS	NS	NS	NS	NS	NS	504
S1-6	51	800	1,084	816	482	1,202	1,340	1,315	832	878	892	920	860	928	860	NS	NS	774
S1-7	200	787	1,084	879	710	NS	1,290	1,327	857	843	786	780	800	660	752	NS	NS	708
S1-8	64	927	1,072	769	465	1,118	1,290	1,516	921	931	1,110	880	800	935	800	909	NS	708
S1-9	77	506	1,530	830	225	1,809	2,020	2,085	1,500	337	1,589	1,420	1,750	567	1,480	NS	NS	1,520
S1-10	46	214	2,105	1,381	147	2,251	2,610	2,540	1,716	1,980	1,800	1,810	1,770	567	1,640	2,001	NS	2,205
S1-11	120	281	1,848	1,193	270	2,004	2,210	NS	1,500	1,609	1,751	1,810	1,639	2,510	1,548	1,825	NS	2,121
S1-12	140	1,002	2,260	1,200	585	2,313	2,390	2,129	1,780	2,056	1,445	2,410	2,210	2,355	NS	1,086	NS	1,850
S1-13	520	894	760	598	404	771	930	990	698	836	722	850	790	1,077	1,032	960	NS	678
S1-14	590	1,730	2,304	1,214	626	1,502	1,077	1,616	1,350	1,293	1,443	1,400	1,550	1,440	1,415	1,000	NS	1,392
S1-15	5,300	4,910	3,696	2,374	336	3,373	2,756	2,778	3,030	2,484	2,280	3,490	2,080	2,583	2,600	1,450	NS	2,597
S1-16	8,900	8,900	3,122	1,651	180	NS	2,056	2,732	2,256	NS	718	NS	NS	NS	NS	1,744	NS	1,050
S1-17	6,800	5,550	1,106	750	405	627	388	344	314	266	180	230	102	141	90	92	NS	73
S1-18	2,200	2,043	196	112	52	90	101	44	86	39	34	36	34	49	36	45	NS	24
S1-19	20	914	220	110	53	26	37	33	60	25	28	28	25	39	18	22	NS	14
S1-20	120	1,360	192	126	60	25	95	141	57	68	50	47	68	60	30	43	NS	21
S1-21	65	418	1,020	134	23	113	48	17	29	18	8	19	19	42	8	11	NS	6
S1-22	290	1,080	1,010	123	8	12	6	4	28	14	19	16	44	64	25	31	NS	30
S1-23	350	234	1,315	137	7	24	14	27	29	13	21	NS	NS	29	10	20	NS	13
S1-24	250	240	200	52	16	25	16	16	39	16	18	19	19	42	13	17	NS	13
S1-25	550	660	91	35	11	26	16	16	28	14	15	15	15	33	13	23	NS	13
S1-26	540	575	84	34	14	25	25	22	39	15	18	17	17	49	11	16	NS	14
S1-27	220	219	400	119	52	51	62	60	52	45	42	41	35	88	NS	128	NS	25
S1-28	370	520	380	64	11	275	29	12	23	14	15	17	15	21	41	18	NS	14
S1-29	670	496	182	47	16	50	62	23	28	19	20	23	21	33	20	20	NS	16
S1-30	370	711	604	113	27	51	50	78	38	28	31	32	26	86	42	28	NS	20
S1-31	14	712	70	34	15	0	57	29	60	15	17	20	17	29	16	25	NS	12
S1-32	18	347	910	185	30	100	132	85	82	48	49	46	45	73	42	40	NS	35
S1-33	10	30	55	30	12	101	99	16	25	NS	NS	NS	15	567	12	NS	NS	NS
S1-34	11	50	94	50	24	79	90	75	24	NS	13	17	16	18	17	NS	NS	NS
S1-35	24	154	95	68	22	25	43	45	64	44	43	19	86	37	46	NS	NS	28
S1-36	200	162	106	56	10	60	49	44	45	NS	27	30	43	39	NS	NS	NS	NS
S1-37	13	71	180	44	12	50	52	55	57	NS	9	23	35	36	34	NS	NS	NS
S1-38	59	73	52	21	1	NS	1,540	6	17	NS	NS	NS	24	22	NS	NS	NS	NS
S1-39	290	414	96	35	17	15	25	22	21	14	11	14	17	17	10	NS	NS	10
S1-40	150	210	268	70	25	38	25	33	25	18	15	16	14	17	13	18	NS	18
S1-41	170	116	84	31	14	1	48	12	17	12	11	11	12	16	NS	NS	NS	10
S1-42	88	103	35	17	5	0	11	37	13	NS	NS	NS	21	22	NS	NS	NS	NS
S1-43	4	36	50	24	6	1	21	NS	19	NS	NS	5	5	14	NS	NS	NS	NS
S1-44	280	204	45	25	9	25	19	44	33	23	21	23	21	28	53	NS	NS	9
S1-45	4,400	588	174	51	14	37	20	30	33	26	NS	17	28	24	16	NS	NS	10
S1-46	480	462	76	18	4	1	11	10	21	15	NS	34	21	24	6	10	NS	4
S1-47	1,200	1,390	155	79	25	150	72	61	60	42	NS	25	46	31	20	NS	NS	24
S1-48	1,200	1,505	133	62	15	50	34	31	31	21	NS	35	37	22	22	NS	NS	15
S1-60	48	91	126	28	8	25	11	15	16	10	NS	10	26	17	11	NS	NS	8
S1-61	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	758	744	1,028	366	201	152	NS	78
S1-62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	125	42	26	27	20	18	NS	20
S1-63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	264	256	193	241	149	150	NS	155
S1-64	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	512	102	63	66	53	55	NS	44

NS = Not Sampled

Table 4-7

HISTORY OF TOC CONCENTRATIONS
AT INT PRODUCTION WELLS

Well ID	Baseline Nov-Dec 91 (ppm)	Maximum Feb-Dec 92 (ppm)	Max 1993 (ppm)	Avg 1993 (ppm)	Min 1993 (ppm)	Jan 1994 (ppm)	Feb 1994 (ppm)	Mar 1994 (ppm)	Apr 1994 (ppm)	May 1994 (ppm)	June 1994 (ppm)	July 1994 (ppm)	Aug 1994 (ppm)	Sep 1994 (ppm)	Oct 1994 (ppm)	Nov 1994 (ppm)	Dec 1994 (ppm)	Jan 1995 (ppm)
INT-1	3,600	3,600	1,584	1,029	460	1,050	718	800	608	507	374	375	290	320	252	253	NS	204
INT-2	1,800	1,120	900	414	215	174	230	290	301	343	339	602	288	281	426	214	NS	91
INT-3	5,200	2,030	1,935	1,389	218	2,080	1,926	1,188	1,362	1,058	1,260	1,548	1,092	932	972	1,550	NS	1,016
INT-4	610	928	793	526	330	587	1,300	1,300	990	992	541	694	542	430	398	NS	NS	198
INT-5	960	1,689	536	356	190	263	248	205	159	94	101	92	70	103	86	90	NS	76
INT-6	280	973	1,140	556	90	720	451	510	312	210	200	135	180	195	105	100	NS	76
INT-7	100	245	1,100	308	24	99	74	99	104	117	140	147	129	101	109	38	NS	120
INT-8	75	666	196	90	24	112	103	84	87	62	60	56	53	64	46	43	NS	47
INT-9	800	1,413	358	178	101	188	174	142	105	78	77	68	69	70	65	NS	NS	68
INT-10	1,900	1,328	186	109	57	100	93	112	96	65	62	NS	52	82	56	135	NS	45
INT-11	590	1,816	171	117	80	175	186	NS	85	11	44	NS	NS	113	44	31	NS	31
INT-12	3,300	1,820	1,255	399	141	364	239	106	123	66	105	65	48	74	26	23	NS	32
INT-13	590	924	251	122	40	99	67	63	50	47	89	50	28	50	31	23	NS	34
INT-14	24	1,026	492	266	58	226	154	112	162	62	NS	61	84	119	59	53	NS	39
INT-15	19	1,760	38	20	9	12	34	20	19	14	19	13	30	47	13	18	NS	17
INT-16	2,000	2,230	147	28	6	13	12	15	13	9	11	7	10	68	5	9	NS	6
INT-17	7	252	184	81	39	152	25	13	15	12	NS	9	8	19	6	14	NS	8
INT-18	4	129	270	183	139	225	230	162	137	76	73	64	51	57	38	29	NS	24
INT-19	1,400	1,800	332	158	52	112	76	55	55	43	36	NS	NS	38	39	39	NS	66
INT-20	3,500	3,742	3,141	2,123	901	2,147	1,960	2,525	1,844	2,112	1,922	1,930	1,810	1,182	1,500	NS	NS	1,480
INT-21	29	301	325	260	130	362	327	240	217	214	214	356	204	190	126	NS	NS	204
INT-22	8	68	76	45	18	43	58	55	32	41	44	85	101	95	74	NS	NS	117
INT-23	16	74	112	73	43	48	53	40	32	26	50	241	153	112	68	NS	NS	35
INT-24	240	434	472	293	38	202	174	136	111	85	89	95	84	84	61	65	NS	58
INT-25	36	376	272	169	58	75	60	65	62	32	24	30	25	29	21	NS	NS	20
INT-26	120	970	837	430	143	203	173	152	131	113	38	111	108	122	112	123	NS	110
INT-27	180	324	268	196	107	75	109	116	104	82	85	NS	83	79	75	80	NS	65
INT-28	630	648	288	200	57	187	80	48	51	53	34	38	32	37	22	23	NS	22
INT-29	1,100	1,120	450	245	74	162	130	104	58	78	65	83	59	76	79	58	NS	35
INT-30	1,400	606	294	129	43	112	60	32	28	22	32	26	31	45	38	24	NS	27
INT-31	70	540	120	62	29	12	67	52	41	32	25	30	30	82	20	30	NS	20
INT-32	880	470	208	119	48	124	26	16	29	20	24	23	25	22	11	11	NS	12
INT-33	120	1,710	1,620	910	25	1,374	1,006	255	109	61	47	38	29	20	12	17	NS	10
INT-55	NS	NS	53	53	53	235	113	115	76	147	98	141	109	122	76	61	NS	65
INT-56	NS	NS	668	668	668	901	824	925	153	515	435	350	314	297	213	146	NS	132
INT-57	NS	NS	28	28	28	12	29	40	24	58	61	74	40	66	64	51	NS	75
INT-58	NS	NS	102	102	102	10	94	76	67	54	46	44	45	34	32	33	NS	28
INT-59	NS	NS	121	121	121	100	104	115	81	50	77	45	112	79	72	49	NS	50
INT-60	NS	NS	172	172	172	201	169	195	151	124	118	114	111	110	91	85	NS	86
INT-61	NS	NS	56	56	56	79	80	95	54	59	48	43	38	39	31	40	NS	31
INT-62	NS	NS	52	52	52	75	197	100	65	36	38	30	56	35	28	43	NS	29
INT-65	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	65	116	61	66	54	61	NS	51
INT-66	NS	NS	114	114	114	125	132	175	161	97	113	66	83	120	128	94	NS	94
INT-205	NS	NS	31	31	31	39	132	120	50	34	39	40	36	61	39	39	NS	34
INT-206	NS	NS	24	24	24	218	48	44	45	38	53	75	110	107	87	86	NS	68
INT-207	NS	NS	66	66	66	101	71	56	58	38	52	47	29	45	54	60	NS	74
INT-208	NS	NS	27	27	27	19	53	20	24	16	38	19	20	22	16	16	NS	11
INT-209	NS	NS	35	35	35	40	62	52	51	50	43	46	50	37	20	19	NS	13
INT-210	NS	NS	36	36	36	42	48	24	29	25	22	72	32	27	22	28	NS	23
INT-211	NS	NS	109	109	109	151	127	88	89	55	57	53	76	43	41	46	NS	29
INT-212	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	36	24	22	27	29	38	NS	41
INT-213	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	36	135	45	83	144	70	NS	91
INT-214	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	35	68	47	46	32	31	NS	22
INT-215	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	170	174	94	82	46	82	NS	56
INT-216	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	22	21	24	34	22	28	NS	26
INT-217	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	62	61	81	66	59	61	NS	60
Averages																		
S1	784	950	743	400	159	513	579	565	449	445	484	448	395	387	377	439	NS	451
INT	957	1,125	450	271	116	290	263	236	180	168	148	170	138	125	114	89	NS	100

NS = Not Sampled

Table 4-8

Water Level Measurements 1/2/95 to 1/4/95			
Well ID	DTW (ft)	TOC (ft MSL)	WL (ft MSL)
ERT-01	21.89	18.65	-3.24
ERT-02		18.43	NM
ERT-03	18.70	15.53	-3.17
ERT-07	18.74	17.96	-0.78
ERT-08	19.04	18.34	-0.70
ERT-09	21.50	18.52	-2.98
ERT-10		18.54	NM
ERT-20		11.66	NM
ERT-21		13.63	NM
ERT-22		11.66	NM
ERT-23	5.84	15.85	10.01
ERT-24	5.07	12.98	7.91
ERT-25	4.91	15.18	10.27
ERT-26	5.27	15.77	10.50
ERT-27	3.66	18.67	15.01
ERT-28	11.11	22.11	11.00
ERT-29	10.07	21.66	11.59
ERT-30	13.91	19.64	5.73
ERT-33	4.98	15.29	10.31
ERT-34	5.20	15.56	10.36
FLTG-01	2.25	9.84	7.59
FLTG-02	0.40	9.51	9.11
FLTG-03	3.00	10.96	7.96
FLTG-04	2.36	11.28	8.92
FLTG-05	2.53	11.80	9.27
FLTG-06	2.72	12.02	9.30
FLTG-07	6.06	13.31	7.25
FLTG-08		13.10	NM
FLTG-09	4.34	14.80	10.46
FLTG-10	4.35	14.87	10.52
FLTG-11	4.40	15.36	10.96
FLTG-12	4.40	15.28	10.88
FLTG-13	0.24	12.02	11.78
FLTG-14	1.13	11.51	10.38
FLTG-15	3.45	12.53	9.08
INT-059-P1	12.87	11.64	-1.23
INT-059-P2		11.68	NM
INT-059-P4	8.65	11.67	3.02
INT-060-P1	22.06	12.02	-10.04
INT-060-P2		11.99	NM
INT-060-P4	8.25	12.03	3.78
INT-101	11.55	13.12	1.57
INT-102	10.80	14.92	4.12
INT-103	0.83	11.86	11.03
INT-104	2.49	13.43	10.94
INT-105	4.78	12.64	7.86
INT-106	5.77	11.59	5.82
INT-107	6.80	14.94	8.14
INT-108	12.36	13.50	1.14
INT-109	8.93	11.84	2.91
INT-110	11.49	12.81	1.32
INT-111	10.72	11.60	0.88
INT-112	11.38	12.75	1.37
INT-113	13.00	15.71	2.71

Table 4-8 (Continued)

Water Level Measurements 1/2/95 to 1/4/95			
Well ID	DTW (ft)	TOC (ft MSL)	WL (ft MSL)
INT-114	11.23	11.55	0.32
INT-115	6.43	15.16	8.73
INT-116	10.76	14.81	4.05
INT-117	18.75	20.96	2.21
INT-118	8.59	19.53	10.94
INT-119	8.70	15.45	6.75
INT-120		15.05	NM
INT-121		15.25	NM
INT-122		15.37	NM
INT-123		15.05	NM
INT-124		14.40	NM
INT-125		13.67	NM
INT-126		11.72	NM
INT-127		11.12	NM
INT-128		11.15	NM
INT-129		5.14	NM
INT-130		11.21	NM
INT-131		5.83	NM
INT-132	19.31	14.96	-4.35
INT-133	20.58	16.89	-3.69
INT-134	25.32	16.79	-8.53
INT-135	30.58	17.99	-12.59
INT-136	19.09	14.40	-4.69
INT-137	27.05	19.25	-7.80
INT-138	23.64	20.18	-3.46
INT-139	23.78	19.97	-3.81
INT-140	19.72	13.79	-5.93
INT-141	20.83	14.98	-5.85
INT-142	24.44	17.53	-6.91
INT-143	6.49	15.32	8.83
INT-144	18.04	16.06	-1.98
INT-145	18.74	16.55	-2.19
INT-146	18.72	16.54	-2.18
P-5	12.60	15.11	2.51
P-6	14.31	18.34	4.03
REI-03-2		12.47	NM
REI-03-3		13.14	NM
REI-03-4		13.99	NM
REI-7		13.38	NM
REI-10-2		14.15	NM
REI-10-3	12.28	15.12	2.84
REI-11		11.78	NM
REI-12-2	5.16	12.27	7.11
REI-3-1		13.44	NM
S1-050-P1	8.56	12.75	4.19
S1-050-P2		12.05	NM
S1-050-P3	8.48	12.83	4.35
S1-051-P1	9.25	12.68	3.43
S1-051-P2		12.91	NM
S1-051-P3	8.56	12.20	3.64
S1-101	3.41	12.77	9.36
S1-102	12.67	15.64	2.97
S1-103	12.93	15.04	2.11
S1-104	5.14	12.98	7.84

Table 4-8 (Continued)

Water Level Measurements 1/2/95 to 1/4/95			
Well ID	DTW (ft)	TOC (ft MSL)	WL (ft MSL)
S1-105	1.92	11.89	9.97
S1-106	5.88	13.97	8.09
S1-107	4.65	14.44	9.79
S1-108	4.27	12.58	8.31
S1-109	5.56	12.51	6.95
S1-110	8.24	11.77	3.53
S1-111	3.69	12.39	8.70
S1-112	6.86	12.53	5.67
S1-113	2.99	12.12	9.13
S1-114	6.79	15.02	8.23
S1-115	4.34	13.27	8.93
S1-116	6.08	15.37	9.29
S1-117	11.42	21.48	10.06
S1-118		18.99	NM
S1-119		5.34	NM
S1-120		6.21	NM
S1-121		6.13	NM
S1-122		3.59	NM
S1-123		10.70	NM
S1-124		5.58	NM
S1-125		5.24	NM
S1-126		5.49	NM
S1-127		4.88	NM
S1-128		5.12	NM
S1-129		5.44	NM
S1-130		5.85	NM
S1-131		5.47	NM
S1-132		4.49	NM
S1-133		5.26	NM
S1-134		5.98	NM
S1-135	5.45	18.02	12.57
S1-137	6.87	19.10	12.23
S2-101	72.22	16.53	-55.69
SG-1		9.98	NM
SG-2 (Cell D)			
SG-3		1.27	NM
SG-4 (E Pond)			
SG-5	9.58	5.33	-4.25
W-3	20.23	18.53	-1.70
W-4	20.94	18.51	-2.43
W-5	22.06	18.51	-3.55
W-7	20.04	18.34	-1.70

TOC (top of casing) based on latest survey data.
Survey records are in AHA database.

Table 4-9

Dissolved Oxygen at Production Wells

Well	7/1/94	7/30-8/3/94	9/1/94	10/1/94	11/23/94	1/1/95
S1-1	0.6	0.5	2.1	2.2	0.8	1.6
S1-2	0.5	0.2	1.7	1.4	1.6	1.1
S1-3	0.8	0.2	1.8	1.2	1.0	1.1
S1-4	0.4	0.2	2.0	1.4	0.8	0.9
S1-5	NM	NM	NM	NM	NM	1.6
S1-6	0.3	0.1	1.6	3.6	NM	0.8
S1-7	0.5	0.2	1.3	1.8	NM	1.2
S1-8	0.5	0.2	1.1	1.2	0.7	0.8
S1-9	0.7	0.1	0.8	5.0	NM	1.5
S1-10	0.4	0.1	0.6	2.6	0.5	1.0
S1-11	0.7	2.1	1.1	1.4	0.9	1.4
S1-12	0.8	0.5	1.1	NM	1.3	1.5
S1-13	0.7	0.8	1.7	5.2	1.3	1.5
S1-14	0.7	0.1	1.1	3.0	0.4	0.8
S1-15	0.6	0.2	1.4	1.4	0.7	0.7
S1-16	NM	NM	NM	NM	1.2	2.9
S1-17	0.8	1.5	1.2	2.4	0.8	1.4
S1-18	2.0	1.5	2.4	2.2	1.4	2.2
S1-19	4.9	1.4	3.4	7.0	3.9	6.6
S1-20	5.8	1.5	1.6	7.4	1.7	3.2
S1-21	10.4	12.2	15+	15+	15+	15+
S1-22	15+	2.4	1.5	2.3	0.7	1.6
S1-23	NM	NM	1.9	13.2	1.5	4.8
S1-24	10.5	8.9	0.9	2.0	2.6	1.8
S1-25	1.6	0.6	0.8	3.2	0.8	1.4
S1-26	2.6	3.2	2.2	3.0	0.7	1.1
S1-27	1.6	1.0	1.4	NM	1.9	2.0
S1-28	2.4	0.9	1.2	1.8	1.2	1.7
S1-29	1.6	1.0	1.9	2.6	2.2	4.4
S1-30	1.0	0.8	1.5	2.2	1.1	4.2
S1-31	1.5	1.0	1.8	4.2	1.6	1.2
S1-32	1.2	0.3	1.4	0.8	1.5	1.6
S1-33	NM	1.7	1.4	NM	NM	NM
S1-34	1.0	1.8	1.2	1.6	NM	NM
S1-35	0.7	0.5	1.7	1.8	NM	1.5
S1-36	1.0	1.6	0.9	NM	NM	NM
S1-37	2.0	1.4	1.3	1.4	NM	NM
S1-38	NM	12.0	15+	NM	NM	NM
S1-39	1.3	0.5	1.3	2.6	2.9	3.2
S1-40	0.7	0.5	2.2	1.6	1.0	2.0
S1-41	1.8	1.0	1.0	NM	1.0	1.4
S1-42	NM	6.9	14.0	NM	NM	NM
S1-43	1.6	2.0	2.2	NM	NM	NM
S1-44	10.0	14.2	1.8	2.0	6.0	1.8
S1-45	5.2	6.4	2.9	2.0	2.3	5.1
S1-46	13.5	15+	13.5	15+	15+	15+
S1-47	5.9	1.9	9.6	14.8	8.7	5.4
S1-48	2.0	1.2	5.3	5.7	4.2	5.0
S1-60	1.8	5.7	6.1	7.0	4.4	5.6
S1-61	1.3	0.8	1.1	2.0	0.8	1.2
S1-62	0.8	1.1	1.4	2.9	2.8	12.6
S1-63	1.0	2.2	2.2	1.9	0.9	4.0
S1-64	2.0	4.0	2.4	4.6	1.8	4.1

Table 4-9 (Continued)

Dissolved Oxygen at Production Wells

Well	7/1/94	7/30-8/3/94	9/1/94	10/1/94	11/23/94	1/1/95
INT-1	1.0	0.8	1.1	1.6	1.4	3.0
INT-2	1.7	0.2	1.5	1.4	0.8	0.8
INT-3	0.8	0.2	1.0	1.4	1.0	1.4
INT-4	0.5	0.1	0.8	1.6	1.1	1.2
INT-5	1.8	1.1	2.3	1.9	1.1	1.0
INT-6	1.2	0.4	0.7	1.6	1.3	1.4
INT-7	1.3	0.3	1.5	2.6	1.0	0.6
INT-8	1.5	0.3	1.8	3.0	1.0	1.9
INT-9	1.8	0.5	1.2	1.8	NM	1.4
INT-10	NM	2.6	1.9	3.6	1.4	1.7
INT-11	NM	NM	1.1	4.4	2.2	3.4
INT-12	13.8	15+	2.2	16.0	13.8	13.8
INT-13	5.4	4.0	0.9	5.8	7.8	1.6
INT-14	1.2	1.0	1.8	2.6	1.7	1.7
INT-15	1.8	1.0	1.4	2.6	1.6	2.0
INT-16	2.5	1.6	2.1	2.0	3.0	1.8
INT-17	2.0	2.6	2.9	3.2	2.2	2.6
INT-18	1.2	1.2	1.8	1.8	1.2	1.5
INT-19	NM	NM	2.4	1.9	1.4	1.1
INT-20	1.2	0.1	1.3	2.0	0.9	1.2
INT-21	2.0	2.0	1.7	2.4	2.6	3.0
INT-22	2.0	0.6	0.8	1.6	1.0	1.1
INT-23	1.2	0.4	1.1	1.4	2.4	2.3
INT-24	1.2	0.8	1.8	2.6	2.0	2.6
INT-25	6.0	12.5	12.5	14.2	15+	10.2
INT-26	2.8	0.8	1.4	3.0	1.6	2.3
INT-27	NM	1.1	1.6	1.8	1.2	1.4
INT-28	2.4	3.3	5.2	6.2	7.4	4.6
INT-29	5.6	3.8	5.2	4.8	4.0	4.4
INT-30	10.2	8.4	9.5	7.2	9.4	1.8
INT-31	5.7	6.5	1.4	7.0	4.1	5.3
INT-32	15+	15+	15+	15+	15+	15+
INT-33	2.0	2.1	2.5	2.8	1.9	2.5
INT-55	4.1	1.6	3.4	2.8	2.0	2.2
INT-56	1.0	0.6	1.2	1.8	1.5	1.6
INT-57	1.1	7.1	6.2	3.2	2.8	3.1
INT-58	1.4	1.1	1.9	2.6	1.9	1.6
INT-59	2.4	2.3	2.2	2.4	2.4	3.0
INT-60	1.0	1.1	1.8	4.0	1.9	2.4
INT-61	2.0	2.2	2.7	3.8	1.8	2.6
INT-62	4.0	2.0	1.0	4.4	2.1	2.6
INT-65	1.6	1.1	2.1	1.8	1.0	1.2
INT-66	2.1	2.6	2.2	1.8	1.0	3.1
INT-205	1.4	0.3	1.8	3.4	1.8	2.8
INT-206	1.6	0.4	1.1	1.8	2.4	1.2
INT-207	1.0	0.8	4.6	2.2	1.0	1.2
INT-208	1.6	0.8	1.3	3.2	3.4	11.8
INT-209	1.8	14.5	2.8	9.0	15+	14.8
INT-210	15+	15+	15+	15+	15+	15+
INT-211	1.2	9.1	1.9	3.0	2.0	2.0
INT-212	4.1	1.5	1.6	3.0	2.2	1.8
INT-213	0.8	0.7	1.2	2.0	1.2	2.0
INT-214	2.8	1.3	3.8	4.8	4.6	2.8

Table 4-9 (Continued)

Dissolved Oxygen at Production Wells

Well	7/1/94	7/30-8/3/94	9/1/94	10/1/94	11/23/94	1/1/95
INT-215	3.4	4.0	5.2	3.8	3.6	3.0
INT-216	2.9	15+	3.4	4.4	4.2	2.7
INT-217	1.1	1.0	1.6	1.4	1.2	1.8

Table 4-10

Dissolved Oxygen at Monitoring Wells

	11/22/93	2/3/94	3/4/94	4/5/94	5/2/94	6/1/94	7/3/94	7/31/94	9/2/94	10/1/94	12/15/94
ERT-1	NM	1.2	1.0	0.8	1.4	0.8	0.8	0.2	0.2	1.1	1.2
ERT-3	0.8	1.0	1.0	0.8	1.2	1.0	1.2	0.4	0.2	0.7	1.8
ERT-7	1	1.2	1.0	1.1	0.6	0.8	0.8	0.2	0.2	1.5	NM
ERT-8	1.2	1.0	1.0	1.2	0.3	0.6	0.7	0.2	0.2	1.0	2.2
ERT-9	0.8	0.8	1.0	1.1	0.5	1.3	1.0	0.3	0.4	NM	NM
ERT-23	NM	1.6	1.8	0.6	0.6	0.8	NM	NM	NM	NM	0.7
ERT-24	0.6	1.4	0.8	0.8	1.2	NM	NM	NM	NM	NM	2.0
ERT-25	0.8	1.0	1.8	0.7	1.2	1.0	NM	NM	NM	NM	1.6
ERT-26	0.4	0.7	0.8	1.7	0.5	NM	NM	NM	NM	NM	2.3
ERT-27	0.6	1.0	1.9	0.6	1.0	NM	NM	NM	NM	NM	NM
ERT-28	0.5	1.6	6.4	1.8	1.4	NM	NM	NM	NM	NM	4.8
ERT-29	0.6	2.6	1.2	1.0	0.9	NM	NM	NM	NM	NM	NM
ERT-30	1	7.2	7.5	4.8	5.6	NM	NM	NM	NM	NM	NM
ERT-33	1.6	0.6	1.1	0.8	0.5	0.4	0.2	0.2	NM	NM	1.1
ERT-34	1.2	0.7	0.9	0.6	0.2	0.6	1.0	0.1	NM	NM	NM
FLTG-1	0.6	1.0	0.8	0.6	0.2	0.3	NM	NM	NM	NM	3.6
FLTG-2	0.6	0.8	1.0	0.7	0.8	1.2	NM	NM	NM	NM	NM
FLTG-3	1	0.3	1.3	1.0	0.5	0.8	NM	NM	NM	NM	NM
FLTG-4	0.8	1.2	1.0	0.7	0.9	0.6	NM	NM	NM	NM	NM
FLTG-5	0.6	0.2	0.8	1.0	0.6	0.4	NM	NM	NM	NM	3.0
FLTG-6	0.8	1.6	1.2	0.8	1.8	1.6	NM	NM	NM	NM	NM
FLTG-7	1.2	0.4	1.6	0.7	0.8	0.6	0.1	0.1	0.8	0.4	2.0
FLTG-8	0.6	0.4	1.7	0.6	1.3	0.8	0.6	0.0	0.4	0.4	2.5
FLTG-9	0.4	0.7	1.2	3.7	9.4	11.4	14.5	10.9	15+	NM	NM
FLTG-10	0.6	1.8	1.1	1.0	1.2	2.2	0.6	1.6	2.6	4.6	3.2
FLTG-11	0.4	0.8	0.6	0.6	0.6	0.6	0.4	0.3	0.5	0.6	NM
FLTG-12	0.6	1.2	0.8	0.8	1.2	1.8	0.8	0.8	0.6	0.6	NM
FLTG-13	1	0.2	0.3	0.7	0.8	0.8	0.8	0.2	0.4	0.6	2.6
FLTG-14	0.4	0.6	0.6	0.5	1.0	0.8	0.4	0.3	0.4	0.4	2.4
FLTG-15	0.8	0.7	0.8	0.9	1.0	1.2	NM	NM	NM	NM	2.4
INT-59-P1	0.4	0.0	1.6	0.5	0.6	0.5	1.2	0.8	0.6	0.8	NM
INT-59-P4	0.6	0.1	1.4	0.6	1.2	0.9	0.5	0.7	0.6	0.6	NM
INT-60-P1	NM	0.2	1.7	0.6	1.2	1.0	1.0	0.2	0.4	0.8	NM
INT-60-P4	0.8	0.4	1.4	0.7	1.2	0.8	1.4	0.4	0.4	0.6	NM
INT-101	1	0.7	1.0	0.6	0.6	0.4	0.8	0.4	0.2	0.8	2.6
INT-102	0.8	0.2	0.6	0.6	0.8	0.6	1.4	1.8	NM	20.6	15.0
INT-103	1	0.0	2.2	0.8	0.5	0.7	0.8	1.4	0.1	NM	1.3
INT-104	5.2	1.0	2.3	1.4	1.0	4.8	0.5	3.3	0.3	5.4	4.6
INT-105	1.4	0.1	1.2	0.4	0.6	0.7	0.02	0.2	0.4	8.7	4.6

Table 4-10 (Continued)

Dissolved Oxygen at Monitoring Wells

	11/22/93	2/3/94	3/4/94	4/5/94	5/2/94	6/1/94	7/3/94	7/31/94	9/2/94	10/1/94	12/15/94
INT-106	1.2	15+	15+	15+	15+	15+	15+	15+	15+	19.8	15.0
INT-107	1.0	0.6	15+	15+	15+	15+	15+	15+	15+	30.4	15.0
INT-108	0.8	0.3	1.1	0.5	0.9	0.2	0.8	0.2	0.2	1.3	2.1
INT-109	0.8	0.6	1.6	0.8	1.4	0.8	0.04	0.1	0.5	14.5	2.2
INT-110	0.6	1.0	1.6	0.9	1.3	0.9	0.5	0.1	0.8	2.2	0.8
INT-111	4.6	0.5	1.2	0.8	1.2	1.4	1.0	0.7	2.0	2.5	2.8
INT-112	3.4	11.2	15+	15+	15+	15+	15+	15+	15+	39.8	15.0
INT-113	0.8	0.2	0.9	0.3	15+	15+	15+	8.6	15+	34.9	10.3
INT-114	1	0.8	1.6	0.6	0.8	0.8	1.1	0.8	0.4	2.1	1.5
INT-115	0.6	0.6	1.2	0.6	0.2	1.0	5.7	0.3	0.8	1.8	4.6
INT-116	1.4	3.2	2.4	3.4	3.0	3.8	NM	NM	NM	NM	2.4
INT-117	0.4	1.0	2.7	1.9	2.6	2.8	NM	NM	NM	NM	3.1
INT-118	0.8	0.1	4.8	3.8	3.2	2.2	NM	NM	NM	NM	2.0
INT-119	0.4	0.6	1.1	0.5	0.8	0.7	0.2	0.6	1.1	1.0	1.1
INT-132	NM	0.6	2.0	0.7	2.0	1.8	1.0	0.7	0.4	0.5	3.6
INT-133	NM	1.0	0.8	0.6	1.2	1.2	0.4	0.4	0.5	0.8	1.9
INT-134	NM	1.2	0.6	0.6	0.8	0.6	0.4	0.3	0.6	0.4	1.8
INT-135	NM	1.4	0.6	0.8	0.5	0.8	0.4	0.5	0.6	5.1	6.8
INT-137	NM	3.0	1.0	1.5	1.8	1.8	1.0	0.8	0.8	0.4	3.1
INT-138	NM	1.0	0.8	0.7	1.6	0.8	0.6	0.4	0.4	2.3	2.3
INT-139	NM	0.4	0.6	0.4	1.3	0.8	0.2	0.2	0.9	0.5	1.1
P-5	1.8	0.0	1.0	0.7	0.6	0.4	1.5	0.3	0.1	0.2	0.6
P-6	0.6	0.8	1.0	0.4	0.2	0.6	2.6	0.2	0.3	NM	NM
REI-10-2	0.8	0.2	1.2	0.8	0.6	0.8	0.9	0.3	0.4	0.4	1.1
REI-10-3	0.2	0.0	0.6	0.4	0.8	0.8	1.2	0.4	0.3	1.2	0.8
REI-12-2	0.8	1.2	0.8	3.4	2.3	2.0	NM	NM	NM	NM	2.4
S1-101	1.4	1.0	1.1	0.6	0.8	0.8	1.4	0.4	0.2	0.1	0.8
S1-102	0.6	0.6	1.6	0.7	0.5	0.6	1.4	0.3	0.4	0.6	0.5
S1-103	5.4	0.4	0.8	2.8	1.1	6.6	8.2	2.6	2.3	0.1	1.2
S1-104	1	1.0	1.6	1.0	0.6	0.8	0.8	0.0	1.8	3.5	3.9
S1-105	2.4	5.4	15+	1.1	12.8	15+	1.6	5.8	0.2	4.6	1.4
S1-106	1	0.2	0.8	0.8	0.8	0.8	0.4	0.3	0.4	0.6	0.6
S1-107	2.6	2.0	5.4	9.8	14.2	15+	15+	6.0	15+	16.0	15.0
S1-108	1.0	0.2	1.6	1.2	0.9	0.0	0.05	0.2	0.6	0.7	15.0
S1-109	1.2	1.1	8.4	15+	15+	15+	15+	15+	15+	29.4	5.2
S1-110	1.0	1.0	1.3	1.0	0.6	1.4	0.03	0.3	0.6	0.3	0.6
S1-111	1.6	0.6	2.0	1.0	1.0	0.8	0.5	0.2	15+	22.0	15.0
S1-112	1.2	0.6	0.6	1.0	1.2	1.4	1.0	0.4	0.7	0.4	2.4
S1-113	0.6	0.6	1.8	0.7	1.0	0.8	0.4	0.5	0.4	1.0	2.7

Table 4-10 (Continued)

Dissolved Oxygen at Monitoring Wells

	11/22/93	2/3/94	3/4/94	4/5/94	5/2/94	6/1/94	7/3/94	7/31/94	9/2/94	10/1/94	12/16/94
S1-114	0.8	0.8	0.8	0.9	0.7	1.2	1.0	0.3	0.4	0.6	1.5
S1-115	0.8	2.4	1.8	0.6	0.8	1.6	NM	NM	NM	NM	3.2
S1-116	1.6	1.1	0.8	0.9	0.7	0.7	NM	NM	NM	NM	2.1
S1-117	1	1.7	2.0	2.0	1.2	2.3	NM	NM	NM	NM	2.9
S1-118	0.6	0.5	1.6	0.6	1.2	0.6	NM	NM	NM	NM	3.4
S1-135	NM	0.8	1.2	0.8	0.8	1.3	0.5	0.2	0.2	0.3	0.8
S1-137	NM	0.9	1.0	0.8	1.4	1.0	0.8	0.4	0.8	0.8	1.0
S1-50-P1	1.0	15.0	15+	15+	15+	1.7	0.6	15+	15+	18.3	NM
S1-50-P3	8.6	1.0	15+	15+	15+	15+	0.4	15+	11.6	16.5	NM
S1-51-P1	1.0	0.1	1.0	0.2	15+	1.3	15+	0.4	15+	14.6	NM
S1-51-P3	0.6	0.7	1.5	0.7	1.2	0.8	0.04	0.6	0.6	0.3	NM
S2-101	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.8	3.8
SG-1	NM	1.1	NM	NM	NM	NM	6.2	NM	NM	NM	NM
SG-2	NM	8.0	NM	NM	NM	NM	4.1	NM	NM	7.6	NM
SG-3	NM	7.7	NM	NM	NM	NM	6.8	6.3	NM	3.2	NM
SG-4	NM	5.2	NM	NM	NM	NM	NM	NM	NM	6.6	NM
SG-5	NM	5.7	NM	NM	NM	NM	4.0	NM	NM	NM	NM
W-3	0.2	0.4	1.1	0.4	0.3	0.2	1.0	0.5	0.5	0.7	1.8
W-4	1.2	0.2	1.4	0.6	0.5	0.4	0.8	0.5	0.5	0.8	NM
W-5	1.2	0.2	1.6	0.6	0.2	0.2	0.7	0.2	0.4	0.6	NM
W-7	1.2	0.9	0.8	0.4	0.4	1.0	0.6	0.2	0.3	NM	2.6

ATTACHMENT 4A

Texas Trees Planting Proposal

TEXAS TREES
PLANTING PROPOSAL

Customer: French Limited Project
Crosby, Texas
Attention: Mark Collins

PROPOSED VARIETIES OF TREES:

3 - 15 GALLON RIVERBIRCH
3 - 15 GALLON BALD CYPRESS
3 - 15 GALLON RED MAPLE
3 - 15 GALLON LACEBARK/CHINESE ELM
3 - 15 GALLON WEEPING WILLOW
3 - 15 GALLON PINE
3 - 15 GALLON GREEN ASH
3 - 15 GALLON SWEETGUM
3 - 15 GALLON SWAMP CHESTNUT OAK
3 - 15 GALLON SAWTOOTH OAK
3 - 15 GALLON WATER OAK
3 - 15 GALLON WHITE OAK
3 - 15 GALLON WILLOW OAK
3 - 15 GALLON LIVE OAK
3 - 15 GALLON RED DAWN CEDAR

45 (15GALLON) TREES INSTALLED @$89.50 EACH

TOTAL PRICE $4,027.50

INSTALLATION PRICE INCLUDES PLANTING, MULCHING, SELECTIVE STAKING AND WATERING THE TREE IN. THESE ARE ESTIMATED QUANTITIES BY VARIETY AND ARE SUBJECT TO AVAILABILITY AT TIME OF COMPLETION. TREES CARRY SIX MONTH CONDITIONAL GUARANTEE PROVIDED THEY RECEIVE PROPER CARE/MAINTENANCE. TREES WHICH DIE AS A RESULT OF NATURAL DISASTER OR ACTS OF GOD WILL NOT BE GUARANTEED.

5.0 GROUNDWATER TREATMENT PLANT

5.1 Summary of Activities

Operations for the Groundwater Treatment Plant in January concentrated on correcting irregular flows from bioreactor #2 which resulted in upsets of the clarifier and sand filters.

Total suspended solids have been elevated since the last week in December when a 10 ppm value was reported by the laboratory.

Increased wasting activated sludge temporarily controlled the loading until operations determined the cause of irregular flows. Logs revealed that on occasion, the air flow in R-2 was short circuiting which caused severe turbulence in a portion of the media and no circulation in the remaining area allowing solids to drop out and build up. When flows increased, these dead areas broke through with high solids content, thus overloading the clarifier.

R-2 was taken out of service and drained to inspect the tank bottom which revealed four (4) feet of scale and sand covering the air diffusers. To prevent confined space entry exposure, a contractor was dispatched to vacuum these solids from the reactor. Three days later, R-1 was drained and cleaned also.

TOC loading has remained low through January as the S1 wells remain off inside the lagoon. S1-10 and S1-11 wells were activated for one week to evaluate the influence of pumping two middle wells has on water levels at the west end.

As reported in section 4.0 of the January, 1994, monthly report, S1-1 through S1-9 were converted to injection wells for Cell D water disposal to replenish the water table for the planting of new trees scheduled for February. This conversion allowed 442,000 gallons to be disposed of without loading the carbon in the GWT plant with dissolved solids.

There have been no other major mechanical repairs in the GWT plant.

There were no carbon transfers for this reporting period.

Total flows for January, 1995:

Water discharged to the San Jacinto River - 7,388,000 gallons

Water discharged to the Lagoon - 0

Sludge discharged to the Lagoon - 25,700 gallons

Water processed through the GWT - 7,164,600 gallons

Water discharged to the South Pond - 0

Water blended passed Carbon Filter - 5,749,600 gallons

Water processed from Cell D to GWT plant: metered - 0

Cell D injection at S1-1 through S1-9: metered - 442,000 gallons

5.2 Inoculum/Nutrient Addition

The following have been introduced into the bioreactors/clarifier:

Nutrients:
300 gallons Diammonium Phosphate

Microbes:
16 oz. French Limited Isolated Microbes

Coagulant:
~ 4.0 gallons Percol 778 Cationic Polymer

5.3 Maintenance

Table 5-1 lists the preventive maintenance items performed in January.

5.4 Operating Data

Table 5-2 summarizes the laboratory analysis of the treated water discharged to the San Jacinto River.

TABLE 5-1

Preventive Maintenance

Day	Action
January 4	Lubed pumps and motors in GWT plant.
January 6	Checked oil. Lubed and checked belt tension on blowers 1, 2, & 3.
January 9	Completed safety inspection of all electrical equipment and cords.
January 12	Lubed and checked alignment on booster pump "B" chemical storage area.
January 17	Replaced filters in central filter.
January 20	Lubed sludge pump at IPS.
January 24	Lubed all pumps in chemical storage.
January 27	Lubed water booster pump "A".

TABLE 5-2
Treated Water Results Summary

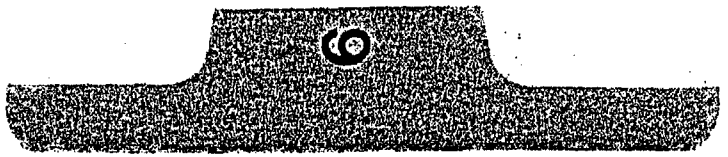
Collected	Set No.	pH (6-9)		TSS 5 PPM		TOC 55 PPM		O&G 15 PPM		Benzene 150 PPB		Chlor HC's 500 PPB		Total PCBs 0.65 PPB		Napthalene 300 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
3-Oct-94	M03A0276	7.36		1.		43.		2.5		2.5		593.		.16		5.	
6-Oct-94	M03A0277	7.44		1.		43.1		2.5		6.		230.		.16		5.	
10-Oct-94	M03A0278	7.61		1.		18.7		2.5		6.		310.		.16		5.	
13-Oct-94	M03A0279	7.28		1.		20.7		2.5		6.		380.		.16		5.	
3-Nov-94	CF-Out 1103	7.39		6.		23.1		2.5		2.5		14.		.16		5.	
14-Nov-94	M03A0282	7.4		9.		23.4		2.5		2.5		145.		.16		5.	
17-Nov-94	M03A0283	7.38		2.		37.3		2.5		2.5		611.		.16		5.	
21-Nov-94	M03A0284	7.27		4.		5.5		2.5		6.		423.		.16		5.	
24-Nov-94	M03A0285	7.26	7.38	4.	3.22	38.8	28.2	2.5	2.5	25.	6.56	1647.	484	.16	.16	5.	5.
28-Nov-94	M03A0286	7.24	7.36	.5	3.17	44.7	28.4	2.5	2.5	12.5	7.67	668.	492	.16	.16	5.	5.
1-Dec-94	M03A0287	7.4	7.36	1.	3.17	34.8	27.4	2.5	2.5	6.	7.67	526.	525	.16	.16	5.	5.
5-Dec-94	M03A0288	7.57	7.35	1.	3.17	28.5	28.5	2.5	2.5	6.	7.67	305.	524	.16	.16	5.	5.
8-Dec-94	M03A0289	7.52	7.38	1.	3.17	40.6	30.7	2.5	2.5	6.	7.67	480.	535	.16	.16	5.	5.
12-Dec-94	M03A0290	7.43	7.39	4.	2.94	33.	31.8	2.5	2.5	6.	8.06	342.	572	.16	.16	5.	5.
15-Dec-94	M03A0291	8.13	7.47	.5	2.	23.	31.8	2.5	2.5	6.	8.44	145.	572	.16	.16	5.	5.
19-Dec-94	M03A0292	7.96	7.53	1.	1.89	29.3	30.9	2.5	2.5	2.5	8.44	75.	512	.16	.16	5.	5.
22-Dec-94	M03A0293	7.91	7.6	4.	1.89	17.8	32.3	2.5	2.5	2.5	8.06	170.	484	.16	.16	5.	5.
26-Dec-94	M03A0294	7.68	7.65	10.	2.56	41.8	32.6	2.5	2.5	6.	5.94	353.	340	.16	.16	5.	5.
29-Dec-94	M03A0295	7.79	7.71	1.	2.61	15.4	29.4	2.5	2.5	2.5	4.83	205.	289.	.16	.16	5.	5.
2-Jan-95	M03A0296	7.78	7.75	4.	2.94	12.9	26.9	2.5	2.5	5.	4.72	275.	261	.16	.16	5.	5.
5-Jan-95	M03A0297	7.81	7.78	5.	3.39	19.	25.9	2.5	2.5	6.	4.72	249.	255	.16	.16	5.	5.
9-Jan-95	M03A0298	7.8	7.81	7.	4.06	9.8	22.4	2.5	2.5	2.5	4.33	124.	215	.16	.16	5.	5.
12-Jan-95	M03A0299	7.77	7.85	2.	3.83	9.8	19.9	2.5	2.5	2.5	3.94	200.	200	.16	.16	5.	5.
16-Jan-95	M03A0300	7.61	7.79	4.	4.22	18.3	19.3	2.5	2.5	5.	3.94	393.	227	.16	.16	5.	5.
19-Jan-95	M03A0301	7.44	7.73	2.	4.33	19.8	18.3	2.5	2.5	5.	4.22	454.	269	.16	.16	5.	5.
23-Jan-95	M03A0302	7.82	7.72	9.	4.89	35.5	20.3	2.5	2.5	6.	4.61	192.	272	.16	.16	5.	5.
26-Jan-95	M03A0303	7.66	7.72	.5	3.83	20.5	17.9	2.5	2.5	6.	4.61	234.	258	.16	.16	5.	5.
30-Jan-95	M03A0304	7.15	7.65	4.	4.17	44.3	21.1	2.5	2.5	25.	7.11	2326.	494	.16	.16	5.	5.
2-Feb-95	M03A0305	7.28															

Discharge sample of 17-Oct destroyed in flood.
Chlorinated hydrocarbons value is sum of detected concentrations of 21 volatile chlorinated hydrocarbons on target compound list.

TABLE 5-2 (Continued)
Treated Water Results Summary

Collected	Set No.	As		Be		Cd		Cr		Cu		Pb		Mn		Hg		Ni		Se		Ag		Zn	
		150 PPB		200 PPB		50 PPB		500 PPB		15 PPB		66 PPB		300 PPB		1 PPB		148 PPB		20 PPB		5 PPB		162 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
3-Oct-94	M03A0276	13.		60.		1.3		2.5		3.		1.3		11.		.1		20.		1.3		2.5		9.	
6-Oct-94	M03A0277	14.		73.		1.3		2.5		3.		1.3		9.		.1		2.5		1.3		2.5		3.8	
10-Oct-94	M03A0278	11.		58.		1.3		2.5		3.		1.3		1.3		.1		1.3		1.3		2.5		10.	
13-Oct-94	M03A0279	10.		70.		1.3		2.5		2.5		1.3		3.		.1		2.5		1.3		2.5		3.8	
3-Nov-94	CF-Out 1103	46		32.		.1		5.		5.		.5		21.		.1		7.		1.3		.2		50.	
14-Nov-94	M03A0282	30.		12.		.1		.2		3.		.5		.1		.1		.1		1.2		.2		3.	
17-Nov-94	M03A0283	15.		51.		.1		2.		2.		.5		14.		.1		8.		1.2		.2		6.	
21-Nov-94	M03A0284	10.		50.		.1		.2		2.		.5		6.		.1		4.		1.2		.2		4.	
24-Nov-94	M03A0285	16.	18.3	79.	54	.1	.6	1.	2.	2.	2.8	.5	.8	27.	10.3	.1	.1	7.	5.8	1.3	1.2	.2	1.2	1.5	10.1
28-Nov-94	*M03A0286*	*6.*	*17.6*	*115.*	*80*	*.1*	*.5*	*.2*	*1.8*	*2.*	*2.7*	*.5*	*.8*	*18.*	*11.*	*.1*	*.1*	*7.*	*4.4*	*1.3*	*1.2*	*.2*	*.9*	*6.*	*9.8*
1-Dec-94	M03A0287	11.	17.2	109.	64	.1	.4	.5	1.6	1.	2.5	.5	.7	7.	10.8	.1	.1	10.	5.2	1.3	1.2	.5	.7	4.	9.8
5-Dec-94	M03A0288	12.	17.3	121.	71	.1	.2	1.	1.4	3.	2.5	1.	.6	19.	12.8	.1	.1	.9	5.2	1.3	1.2	.5	.5	9.	9.7
8-Dec-94	M03A0289	14.	17.8	128.	77	.1	.1	1.	1.2	.3	2.3	.5	.6	3.	12.8	.1	.1	10.	6.	1.3	1.2	.2	.2	3.8	9.7
12-Dec-94	M03A0290	7.	13.4	154.	91	.1	.1	7.	1.4	4.	2.1	.5	.6	9.	11.5	.1	.1	13.	6.7	1.3	1.2	.2	.2	5.	4.7
15-Dec-94	M03A0291	49.	15.6	92.	100	.1	.1	2.	1.6	.7	1.9	.5	.6	3.	11.8	.1	.1	1.	6.8	5.	1.7	.2	.2	5.	4.9
19-Dec-94	M03A0292	16.	15.7	93.	105	.1	.1	1.	1.5	1.	1.8	.5	.6	3.	10.6	.1	.1	2.	6.1	1.	1.6	.2	.2	4.	4.7
22-Dec-94	M03A0293	17.	16.4	130.	113	.1	.1	.2	1.5	1.4	1.7	.5	.6	2.	10.1	.1	.1	2.	5.9	1.3	1.6	.2	.2	1.5	4.4
26-Dec-94	M03A0294	11.	15.9	151.	121	.1	.1	.2	1.4	1.8	1.7	.5	.6	9.	8.1	.1	.1	4.	5.5	1.3	1.6	.2	.2	6.	4.9
29-Dec-95	M03A0295	18.	17.2	114.	121	.2	.1	1.	1.5	1.	1.6	.5	.6	4.	6.6	.1	.1	3.	5.1	5.	2.1	.2	.2	4.	4.7
2-Jan-95	M03A0296	9.9	18.3	172.	140	.1	.1	2.1	1.8	1.6	1.8	.5	.6	18.	8.6	.1	.1	1.	5.2	1.2	2.2	.2	.2	7.	5.5
5-Jan-95	M03A0297	14.	18.7	151.	145	.1	.1	3.	2.	2.	1.9	.5	.6	57.	14.1	.1	.1	6.	4.8	1.2	2.2	.2	.2	20.	7.3
9-Jan-95	M03A0298	12.	18.7	171.	151	.1	.1	.9	2.	3.	1.9	.5	.6	23.	14.6	.1	.1	4.	5.1	1.3	2.2	.2	.2	7.	7.
12-Jan-95	M03A0299	16.	18.9	143.	152	.1	.1	.2	1.9	2.	2.1	.5	.6	2.	14.4	.1	.1	2.	4.2	1.3	2.2	.2	.2	3.	6.9
16-Jan-95	M03A0300	12.	19.4	146.	151	.1	.1	.6	1.2	3.	1.9	.5	.6	1.	13.6	.1	.1	3.	3.1	1.3	2.2	.2	.2	6.	7.1
19-Jan-95	M03A0301	18.	16.	135.	156	.1	.1	.4	1.1	2.	2.1	.5	.6	2.	13.4	.1	.1	4.	3.4	1.3	1.8	.2	.2	18.	8.5
23-Jan-95	M03A0302	12.	15.5	140.	161	.1	.1	.2	1.	2.	2.2	.5	.6	3.	13.4	.1	.1	6.	3.9	1.3	1.8	.2	.2	16.	9.8
26-Jan-95	M03A0303	16.	15.4	148.	163	.1	.1	.2	1.	2.	2.3	.5	.6	2.	13.4	.1	.1	2.	3.9	1.3	1.8	.2	.2	12.	11.
30-Jan-95	M03A0304	9.	15.2	238.	173	.1	.1	.2	1.	2.	2.3	.5	.6	43.	17.2	.1	.1	3.	3.8	1.3	1.8	.2	.2	5.	10.9

Discharge sample of 17-Oct destroyed in flood.
Metals values in PPB.



6.0 AMBIENT AIR MANAGEMENT

Ambient air quality management continued on an "as-needed" basis to protect the environment, human health, and site workers.

6.1 Summary of Activities

Collected and analyzed three time-integrated personnel exposure samples; the measured levels of volatile organic compounds were well below the action levels.

Sampled the ambient air in all work areas several times per shift and on a random "spot-check" basis; there were no levels of volatile organic compounds which required response action. Sampled ambient air in special work areas where burning and/or welding was planned. Sampled ambient air continuously in areas where exposure could occur.

6.2 Problems and Response Action

Problem	Response Action
Calibrate portable vapor meters.	Train operators to calibrate; refurbish all meters.
Sampling "hot" wells.	Require respirator use when sampling "hot" wells.
Ambient air quality in all work areas.	Check all work areas with portable meter several times per day.
H_2S levels in some well vaults.	Vent vault and purge with air before working in the vaults.

6.3 Problems Resolved

None.

6.4 On-going Events/Activities

Measure ambient air quality in all work areas several times per day.

Conduct periodic time-integrated sampling in all major work areas.

Require respiratory protection when sampling "hot" wells.

Conduct necessary air sampling and analyses to issue "burn" permits.

Closely monitor ambient air quality in the vicinity of new projects/activities.

Conduct respirator fit tests on all employees.

7

7.0 QUALITY ASSURANCE/QUALITY CONTROL

7.1 Summary of Activities

7.1.1 Sampling

One set of personal air monitoring samples were collected in January. The following is a summary of current routine and special air matrix code sample specifics:

MATRIX CODE	SAMPLE SPECIFICS
M01D	TF at three locations

TF = Tenax® front tube

Table 7-1 is a summary of the air, soil and water samples collected for the month of January. Table 7-2 is a summary of Scheduled Sampling Events for the month of January.

7.1.2 Data Validation Activities Summary

7.1.2.1 Treated Water Samples

Data validation was completed for sample sets M03A0286, M03A0287, M03A0288, M03A0289, M03A0290, M03A0291, M03A0292, M03A0293, M03A0294 and M03A0295. These samples were collected between November 28, 1994 and December 29, 1994. QC failures are summarized in Table 7-3. Completeness values are summarized in Tables 7-4 through 7-8.

7.1.2.2 Groundwater Samples

Level I data validation was completed for sample sets collected during the 1994 annual groundwater sampling event. QC summaries and completeness values for this sampling event will be reported in the February monthly report and in the 1994 Annual QA Report to be completed in mid March..

7.1.2.3 Other Samples

All other special sample sets were validated manually this period.

7.2 Data Validation QC Summary and Discussion

7.2.1 Level I and Level II QC Philosophy

The Quality Assurance Project Plan (QAPP) defines data validity in terms of procedural requirements which must be followed for data comparability, and numerical data quality objectives which must be met to assure precision and accuracy of the results. Precision, accuracy and completeness are the numerical Data Quality Objectives (DQOs) established for the French Project by the QAPP. The intent of the data validation process is to verify that the documentation and quality control data provided by the laboratory properly substantiate the required data quality.

For purposes of data validation procedures, the QAPP defines two QC levels: Level I and Level II. Level I data validation is specified for process control and progress monitoring sample data validation and Level II data validation is specified for remediation verification sample results and treated water discharge sample results.

7.2.2 QA Issues

7.2.2.1 Double Blind Spike Samples

FLTG submitted a double blind spike sample to AATS-LA on January 12, 1995. This sample was prepared by Environmental Resource Associates, Inc., a company specializing in spike sample preparation.. The analytical results of this sample will be reported in the February monthly report.

TABLE 7-1

Samples Collected - January, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M01D005001	Personal air monitoring	WTP Operator	1/18	1/19	Y	A
M01D005002	Personal air monitoring	Well Maint.	1/18	1/19	Y	A
M01D005003	Personal air monitoring	Security	1/18	1/19	Y	A
M03A029601	Treated water dishcarge	CF Out	1/02	1/03	Y	A
M03A029701	Treated water dishcarge	CF Out	1/05	1/06	Y	A
M03A029801	Treated water dishcarge	CF Out	1/09	1/10	Y	A
M03A029901	Treated water dishcarge	CF Out	1/12	1/13	Y	A
M03A030001	Treated water dishcarge	CF Out	1/16	1/17	Y	A
M03A030101	Treated water dishcarge	CF Out	1/19	1/20	N	A
M03A030201	Treated water dishcarge	CF Out	1/23	1/25	N	A
M03A030301	Treated water dishcarge	CF Out	1/26	1/27	N	A
M03A030401	Treated water dishcarge	CF Out	1/30	2/01	N	A
M06B006701	Double blind lab spike	R1-A	1/11	1/12	Y	A
M06B006702	Double blind lab spike	R1-B	1/11	1/12	Y	A

Labs: A = American Analytical and Technical Services
N = North Water District Lab
K = Chester LabNet-Houston

TABLE 7-1

Samples Collected - January, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M06C002201	Process water monitoring	T-101 Eff	1/09	1/10	Y	A
M06C002202	Process water monitoring	T-101 Inf	1/09	1/10	Y	A
M06C002203	Process water monitoring	R1	1/09	1/10	Y	A
M06C002204	Process water monitoring	R2	1/09	1/10	Y	A
M06C002205	Process water monitoring	Cell D Liqr	1/09	1/10	Y	A
M08C001001	Riverdale well - Fecal Coliform	RD-3	1/19	1/19	Y	N
M08D001301	Riverdale well - Volatile	RD-3	1/19	1/20	Y	A
S14K001101	DNAPL area monitoring	S1-063	1/23	1/24	Y	A
S14K001102	DNAPL area monitoring	S1-127	1/23	1/24	Y	A
S14K001103	DNAPL area monitoring	S1-128	1/23	1/24	Y	A
S14K001104	DNAPL area monitoring	S1-132	1/23	1/24	Y	A
S14K001105	DNAPL area monitoring	S1-133	1/23	1/24	Y	A
S14K001106	DNAPL area monitoring	S1-134	1/23	1/24	Y	A
S16B002901	Treated water discharge - Metals split	Effluent-A	1/23	1/24	Y	A
S16B003001	Treated water discharge - Metals split	Effluent-K	1/23	1/23	N	K

Labs: A = American Analytical and Technical Services
N = North Water District Lab
K = Chester LabNet-Houston

TABLE 7-2

Scheduled Sampling Events
January, 1995

Date Sampled	Set Number	Description	Schedule
1/23/95	S14K0011	DNAPL area monitoring	Special
1/23/95	S16B0029	Discharge metals split	Special
1/23/95	S16B0030	Discharge metals split	Special
1/11/95	M06B0067	Double blind lab spike	Special
1/09/95	M06C0022	Monthly process water	Monthly
1/18/95	M01D0050	Personal Air Monitoring	Monthly
1/19/95	M08C0010	Riverdale well	Monthly
1/19/95	M08D0013	Riverdale well	Monthly
1/02/95	M03A0296	Treated water discharge	Bi-weekly
1/05/95	M03A0297	Treated water discharge	Bi-weekly
1/09/95	M03A0298	Treated water discharge	Bi-weekly
1/12/95	M03A0299	Treated water discharge	Bi-weekly
1/16/95	M03A0300	Treated water discharge	Bi-weekly
1/19/95	M03A0301	Treated water discharge	Bi-weekly
1/23/95	M03A0302	Treated water discharge	Bi-weekly
1/26/95	M03A0303	Treated water discharge	Bi-weekly
1/30/95	M03A0304	Treated water discharge	Bi-weekly

TABLE 7-3

Treated Water QC Failure Summary

Sample Date	Test	QC Failure	Explanation	Corrective Action
12/01/94	PCB	SU Recov.	Surrogate TCX and DCB were outside QC limits on column 1 for this sample.	None required - surrogate recovery must pass on one of two column analysis.
12/01/94	Ba	ICP Interf.	Interference was indicated by the ICP serial dilution.	None required - LCS, Dup and Spike were within QC limits.
12/05/94	Ba	ICP Interf.	Interference was indicated by the ICP serial dilution.	None required - LCS, Dup and Spike were within QC limits.
12/05/94	Mn	ICP Interf.	Interference was indicated by the ICP serial dilution.	None required - LCS, Dup and Spike were within QC limits.
12/05/94	SV	SU Recov.	Surrogate recoveries (SU3) were outside QC limits for this sample.	None required - one Acid and one B/N surrogate are allowed to be outside QC limits.
12/08/94	SV	SU Recov.	Surrogate recoveries (SU3) were outside QC limits for this sample.	None required - one Acid and one B/N surrogate are allowed to be outside QC limits.
12/12/94	SV	SU Recov.	Surrogate recoveries were outside QC limits on the blank associated with this sample set.	Samples were re-extracted and re-analyzed. Surrogate recoveries were within QC limits.
12/12/94	Ba	ICP Interf.	Interference was indicated by the ICP serial dilution.	None required - LCS, Dup and Spike were within QC limits.
12/12/94	SV	SU Recov.	Surrogate recoveries (SU1) were outside QC limits for this sample.	None required - one Acid and one B/N surrogate are allowed to be outside QC limits.
12/15/94	SV	SU Recov.	Surrogate recoveries were outside QC limits on the blank associated with this sample set.	Samples were re-extracted and re-analyzed. Surrogate recoveries were within QC limits.
12/19/94	SV	SU Recov.	Surrogate recoveries (SU6) were outside QC limits for this sample.	None required - one Acid and one B/N surrogate are allowed to be outside QC limits.
12/19/94	SV	SU Recov.	Surrogate recoveries (SU6 and SU3) were outside QC limits for the MS associated with this sample.	None required - one Acid and one B/N surrogate are allowed to be outside QC limits.
12/26/94	VOA	MS Prec.	Relative percent difference values were outside QC limits for the benzene spike on the MS/MSD pair associated with this sample.	Matrix spike percent recoveries were within QC limits on both the Vinyl chloride and Benzene spike. RPD values for Vinyl chloride were within QC limits
12/26/94	SV	IS Recov.	Internal standard recoveries (IS5) were outside QC limits on the sample and MS/MSD pair.	None required - Matrix effect indicated.
12/26/94	SV	MS Accur	Matrix spike for naphthalene was outside QC limits on the MS associated with this set.	RPD values were within QC limits. Matrix effect indicated by IS failure.
12/26/94	SV	SU Recov.	Surrogate recoveries (SU3) were outside QC limits for this sample.	None required - one Acid and one B/N surrogate are allowed to be outside QC limits.
12/26/94	SV	SU Recov.	Surrogate recoveries (SU6) were outside QC limits for the MS associated with this sample.	None required - one Acid and one B/N surrogate are allowed to be outside QC limits.

7.2.3 Completeness Summaries

Tables 7-4 through 7-8 summarize completeness values for VOA, SVA, PCBs, Metals and miscellaneous parameters on treated water samples.

VOA (Table 7-4)

A total of 10 VOA sample sets have been validated with all categories meeting Project Completeness Goals.

SVA (Table 7-5)

A total of 10 SVA sample sets have been validated for this time period. All categories meet or exceed Project Completeness Goals with the exception of sample matrix effect. This is due to matrix effect failures in the early stages of the project and the MS/MSD accuracy failures that occurred during September and October 1994.

PCBs (Table 7-6)

A total of 10 PCB sample sets have been validated for this time period with all samples, meeting data quality objectives. All categories meet or exceed Project Completeness Goals.

Metals (Table 7-7)

A total of 10 sample sets have been validated for this time period. Project Completeness Goals are met or exceeded in all categories.

Miscellaneous Parameters (Table 7-8)

A total of 10 sample sets have been validated for this time period. Project completeness goals are met or exceeded in all categories.

TABLE 7-4

Completeness Summary
M03A Treated Water
Volatile Organics Analyses

SAMPLE DATE SET NUMBER	M03A0286 thru M03A0295	Project to Date	PROJECT GOAL
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check	100	93	90
SU1 (d4-1,2-DCE)	100	97	90
SU2 (d8-Toluene)	100	98	90
SU3 (4-BFB)	100	99	90
IS Check	100	100	90
IS1 (BrClMethane)	100	100	90
IS2 (1,4-DiFlBenzene)	100	100	90
IS3(d5-ClBenzene)	100	100	90
Sample RT/RRT Check	100	*	
Vinyl Chloride			
Accuracy	100	99	90
Precision	100	99	90
Benzene			
Accuracy	100	99	90
Precision	90	100	90
No Group Matrix Effect	100	*	90
No Sample Matrix Effect	100	*	90
Tune Check	100	*	
Overall ICAL Check	100	*	
Overall CCAL Check	100	*	
Overall Lab Blank Check	100	*	

* - Level II QC checks were performed on 10% of samples prior to 6/14/93. PTD completeness values do not apply to these checks.

TABLE 7-5

Completeness Summary
M03A Treated Water
Semivolatile Organic Analyses

SAMPLE DATE SET NUMBER	M03A0286 thru M03A0295	Project to Date	PROJECT GOAL
Extract Holding Time	100	100	100
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check	**100**	**95**	**90**
SU1 (2-FlPhenol)	100	95	90
SU2 (d5-Phenol)	100	93	90
SU3 (d5-Nitrobenz)	60	96	90
SU4(2-FlBiphenyl)	100	97	90
SU5(2,4,6-TBPh)	100	94	90
SU6(d14-Terphen)	100	94	90
IS Check	**100**	**96**	**90**
IS1 (d4-1,4-DiClBenz)	100	100	90
IS2 (d8-Naph)	100	100	90
IS3 (d10-Acenaph)	100	100	90
IS4 (d10-Phenanth)	100	100	90
IS5 (d12-Chrysene)	90	97	90
IS6 (d12-Perylene)	100	96	90
Sample RT/RRT	100	*	*
Napthalene			
Accuracy	90	95	90
Precision	100	99	90
No Group Matrix Effect	100	100	90
No Sample Matrix Effect	100	88	90
Tune Check	100	*	*
Overall ICAL Check	100	*	*
Overall CCAL Check	100	*	*
Overall Lab Blank Check	100	*	*

* - Level II QC checks were performed on 10% of samples prior to 6/14/93. PTD completeness values do not apply to these checks.

TABLE 7-6

Completeness Summary
M03A Treated Water
PCB Analyses

SAMPLE DATE SET NUMBER	M03A0286 thru M03A0295	Project to Date	PROJECT GOAL
Extract Holding Time	100	100	100
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check - Column A	100	99	90
SU1 (DCBP)	90	83	NS
SU2 (TCMX)	90	97	NS
SU Check - Column B	100	98	90
SU1 (DCBP)	100	84	NS
SU2 (TCMX)	100	97	NS
SU Check - Column A or B	100	98	90
Aroclor 1242			
Accuracy	100	99	90
Precision	100	97	90
Overall ICAL Check	100	*	
Overall 1st CCAL Check	100	*	
Overall 2nd CCAL Check	100	*	
Overall Lab Blank Check	100	*	

* - Level II QC checks were performed on 10% of samples prior to 6/14/93. PTD completeness values do not apply to these checks.

TABLE 7-7

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0286 thru M03A0295	PROJECT GOAL
ANALYTE: BARIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	70	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: CADMIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: CHROMIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: COPPER		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: LEAD		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

W - All samples waived due to low response

* Matrix interference is indicated by:
  Furnace analyses - failure of analytical spike or low MSA coefficient
  ICP analyses - failure of serial dilution

TABLE 7-7 (Continued)

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0286 thru M03A0295	PROJECT GOAL
ANALYTE: MANGANESE		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	90	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: NICKEL		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: SILVER		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: ZINC		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: MERCURY		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

W - All samples waived due to low response

* Matrix interference is indicated by:
Furnace analyses - failure of analytical spike or low MSA coefficient
ICP analyses - failure of serial dilution

TABLE 7-7 (Continued)

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0286 thru M03A0295	PROJECT GOAL
ANALYTE:ARSENIC		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: SELENIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

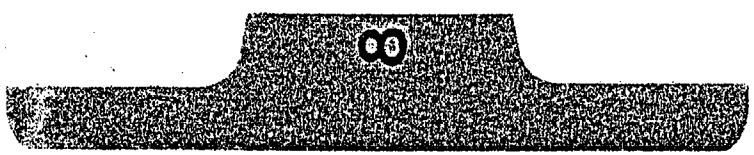
W - All samples waived due to low response

* Matrix interference is indicated by:
Furnace analyses - failure of analytical spike or low MSA coefficient
ICP analyses - failure of serial dilution

TABLE 7-8

Completeness Summary
M03A Treated Water
Miscellaneous Parameters Analyses

SAMPLE DATE SET NUMBER	M03A0286 thru M03A0295	Project to Date	PROJECT GOAL
PARAMETER: TOC			
Analysis Hold Time	100	100	100
MS Accuracy	100	100	NA
DUP Precision	100	100	NA
PARAMETER: OILS			
Analysis Hold Time	100	100	100
MS Accuracy	100	100	NA
DUP Precision	100	100	NA
PARAMETER: TSS			
Analysis Hold Time	100	100	100
MS Accuracy	NA	NA	NA
DUP Precision	100	100	NA


03

8.0 SITE MAINTENANCE

8.1 Summary of Activities

8.1.1 General Housekeeping

The site safety and housekeeping inspections and responses kept grounds safe and attractive for employees and visitors.

8.1.2 Purchasing

All purchases were covered by written requisitions and purchase orders. Purchase of chemicals is now reduced to groundwater treatment and insitu remediation.

8.1.3 Equipment Maintenance

Routine preventive and production maintenance was performed on all equipment.

8.2 Visitors

The following visitors were recorded at the site during January:

January 5: Monica Mizell, ASTRO

January 6: Alan Etheredge, TNRCC
Gary McGill, TNRCC

January 9: Delphany Jordan, BSCHOOL
Carla Windfont, BSCHOOL

January 10: Stephanie Hrabar, GEMS^2
Mustauta Soribudeh, Env. Geophysics
Richard WU, Ground Survey

Richard Barnett, GSH - SIG

January 12: Chip Boxley, Texas Trees
Manual Alreaiz, Sinclay

January 13: Juross John, Quantonla

January 18: E.D. Murphy, IND
Michael Davies, student

January 19: Stephanie Hrabar, Geoscience
Bill Coleman, Nature's Way
M.L. Randall, Nature's Way

January 23: Norma LaDay, BSCHOOL
Carla Windfont, BSCHOOL
Alexandria Windfont, BSCHOOL
Delphany Jordan, BSCHOOL

January 24: Richard Barnett, GSH/Gatt
Mustafa Saribudak, Environmental Geophysics
Richard Wu, Ground Survey, Inc.
David Sheese, BR Jones
Stephanie Hrabar, GEMS^2
David Hugh, BPA

January 25: Steve Vien, Dow Chemical
R.E. Berkley, USEPA

January 28: Christopher Nichols, Rice University

January 30: Richard Wu, Ground Survey, Inc.
A.H. Klareness, KRC
David Shave, B.R. Jones
Warren Franz, ARGO

Sheldon Topham
Steve Jouette, Trinity Valley Nsr.

8.3 Emergency Equipment

8.3.1 Flood Gate Test

The flood gate was exercised on January 16, 1995, with one small leak detected at the striker seal.

8.3.2 P-8 Auxiliary Pump

P-8 Auxiliary Pump was exercised on January 16, 1995.

8.3.3 Fire Extinguishers

All fire extinguishers were inspected and certified.

8.4 Security

Smith Security provides 24-hour security at the FLTG site, including the south side of Gulf Pump Road; all site areas are checked hourly. No incidents reported by Security in January.

8.5 Operator Training

All training is documented and records are maintained on site.

8.6 Data Management

Data base is fully operational. Data is entered on a daily basis.

8.7 Personnel Monitoring

Results of personnel monitoring conducted during January are included in Table 8-1.

8.8 OVM System

The new meteorological station was placed on-line January 25th and is now operational.

Work areas are being monitored daily with Organic Vapor Monitor 580A.

8.9 Repository

Records from the January review are listed in Attachment 8A.

TABLE 8-1

On-Site Employee Contaminant Limits
(From OSHA 29 CFR 1910 Subpart Z)

Compound	PEL 8 hour PPM	M01D005001 18-Jan-95 WTP Operator		M01D005002 18-Jan-95 Well Maintenance		M01D005003 18-Jan-95 Security	
		% of PEL	PPM	% of PEL	PPM	% of PEL	PPM
Chloromethane	50	0.000	0.000	0.000	0.000	0.000	0.000
Bromomethane	5	0.000	0.000	0.000	0.000	0.000	0.000
Vinyl chloride	1	0.000	0.000	0.000	0.000	0.000	0.000
Chloroethane	1000	0.000	0.000	0.000	0.000	0.000	0.000
Dichloromethane	50	0.000	0.000	0.001	0.001	0.000	0.000
Acetone	750	0.000	0.002	0.000	0.002	0.001	0.005
Carbon disulfide	10	0.000	0.000	0.000	0.000	0.000	0.000
1,1-Dichloroethene	5	0.000	0.000	0.000	0.000	0.000	0.000
1,1-Dichloroethane	100	0.000	0.000	0.000	0.000	0.000	0.000
trans-1,2-Dichloroethe	200	0.000	0.000	0.000	0.000	0.000	0.000
Chloroform	10	0.007	0.001	0.001	0.000	0.000	0.000
1,2-Dichloroethane	10	0.002	0.000	0.000	0.000	0.000	0.000
2-Butanone	200	0.003	0.005	0.000	0.000	0.000	0.001
1,1,1-Trichloroethane	350	0.000	0.000	0.000	0.000	0.000	0.000
Carbon Tetrachloride	5	0.002	0.000	0.001	0.000	0.001	0.000
Vinyl acetate	10	0.001	0.000	0.001	0.000	0.000	0.000
Bromodichloromethane			0.000		0.000		0.000
1,2-Dichloropropane	75	0.000	0.000	0.000	0.000	0.000	0.000
cis-1,3-Dichloropropen	1	0.000	0.000	0.000	0.000	0.000	0.000
Trichloroethene	50	0.000	0.000	0.000	0.000	0.000	0.000
Dibromochloromethane			0.000		0.000		0.000
1,1,2-Trichloroethane	10	0.000	0.000	0.000	0.000	0.000	0.000
Benzene	1	0.033	0.000	0.064	0.001	0.015	0.000
trans-1,3-Dichloroprop	1	0.000	0.000	0.000	0.000	0.000	0.000
2-Chloroethylvinyl ether			0.000		0.000		0.000
Bromoform	0.5	0.000	0.000	0.000	0.000	0.000	0.000
4-Methyl-2-pentanone	50	0.002	0.001	0.000	0.000	0.001	0.000
2-Hexanone	5	0.001	0.000	0.002	0.000	0.001	0.000
Tetrachloroethene	50	0.000	0.000	0.000	0.000	0.000	0.000
1,1,2,2-Tetrachloroet	1	0.000	0.000	0.008	0.000	0.000	0.000
Toluene	100	0.004	0.004	0.003	0.003	0.000	0.000
Chlorobenzene	10	0.000	0.000	0.000	0.000	0.000	0.000
Ethylbenzene	100	0.000	0.000	0.000	0.000	0.000	0.000
Styrene	50	0.000	0.000	0.000	0.000	0.000	0.000
Xylene (total)	100	0.000	0.000	0.000	0.000	0.000	0.000
Hexane			0.002		0.001		0.000

A

ATTACHMENT 8A

Repository Status Report: January, 1995

REPOSITORY STATUS REPORT: January, 1995

At the Rice University Library...

1. Remedial Investigation Report April, 1985
2. Remedial Investigation Report Appendices, Volume II, April, 1985
3. Remedial Investigation Report June, 1986 (Updated from April, 1985)
4. Remedial Investigation Report Appendices, Volume I, February, 1986 (Revised June, 86)
5. Remedial Investigation Report Appendices, Volume II, February, 1986 (Revised June, 1986)
6. Remedial Investigation Report Appendices, Volume III, February, I986
7. 1986 Field Investigation and Supplemental Remedial Investigation Report Volume I, December, 1986
8. 1986 Field Investigation and Supplemental Remedial Investigation Report French Limited Site Volume II, Appendices December, 1986
9. 1986 Field Investigation Hydrology Report, December 19, 1986
10. Endangerment Assessment Report February, 1987
11. Endangerment Assessment Report April I987 (Updated from February, 1987)
12. Feasibility Study Report, March 1987
13. In Situ Biodegradation Demonstration Report Volume I Executive Summary, October 30, 1987 Revised 11-11-87
14. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume I, November 30, 1987
15. In Situ Biodegradation Demonstration Report Volume II, October 30, 1987 (Revised February 1, 1988 at Site only)
16. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume II, November 30, 1987 + Appendices

17. In Situ Biodegradation Demonstration Report Volume III Appendices, October 30, 1987

18. In Situ Biodegradation Demonstration Report Volume III, Appendices, Supplemental Report, November 30, 1987

19. In Situ Biodegradation Demonstration Report French Limited Site, Volume IV October 30, 1987 + Appendices

20. In Situ Biodegradation Demonstration Supplemental Report French Limited Site, Volume IV November 30, 1987 + Appendices

21. In Situ Biodegradation Demonstration Report French Limited Site Volume V, October 30, 1987

22. In Situ Biodegradation Demonstration Report French Limited Site Volume V Appendices, November 30, 1987 - Supplemental Report

23. In Situ Biodegradation Demonstration Report French Limited Site Volume VI Appendices, October 30, 1987

24. In Situ Biodegradation Demonstration Report French Limited Site Volume VII Appendices, October 30, 1987

25. In Situ Biodegradation Demonstration Report French Limited Site Volume VIII Appendices, October 30, 1987

26. In Situ Biodegradation Demonstration Report French Limited Site Volume IX Appendices, October 30, 1987

27. In Situ Biodegradation Demonstration Report French Limited Site Volume X Appendices, October 30, 1987

28. In Situ Biodegradation Demonstration Report French Limited Site Volume XI Appendices, October 30, 1987

29. In Situ Biodegradation Demonstration Report French Limited Site Volume XII Appendices, October 30, 1987

30. In Situ Biodegradation Demonstration Report French Limited Site Volume XIII Appendices, October 30, 1987
    This volume is missing.

31. In Situ Biodegradation Demonstration Report French Limited Site Volume XIV Appendices, October 30, 1987

32. In Situ Biodegradation Demonstration Report French Limited Site Volume XV Appendices, October 30, 1987

33. In Situ Biodegradation Demonstration Report French Limited Site Volume XVI Appendices, October 30, 1987

34. In Situ Biodegradation Demonstration Report French Limited Site Volume XVII Appendices, October 30, 1987

35. In Situ Biodegradation Demonstration Report French Limited Site Volume XVIII Appendices, October 30, 1987

36. Proposed In Situ Biodegradation Demonstration French Limited Site Phase III, April, 1987

37. In Situ Bioremediation Demonstration French Limited April, 1987 Monthly Report, Equipment Evaluation Phase IV

38. In Situ Bioremediation Demonstration French Limited May, 1987 Monthly Report, Equipment Evaluation Phase IV

39. In Situ Bioremediation Demonstration French Limited June, 1987 Monthly Report, Equipment Evaluation Phase IV

40. In Situ Bioremediation Demonstration French Limited July, 1987 Monthly Report, Equipment Evaluation Phase IV

41. In Situ Bioremediation Demonstration French Limited August, 1987 Monthly Report, Equipment Evaluation Phase IV

42. In Situ Bioremediation Demonstration French Limited November, 1987 Monthly Report, Equipment Evaluation Phase IV

43. In Situ Bioremediation Demonstration French Limited December, 1987 Monthly Report, Equipment Evaluation Phase IV

44. In Situ Bioremediation Demonstration French Limited January, 1988 Monthly Report, Equipment Evaluation Phase IV

45. In Situ Bioremediation Demonstration French Limited February, 1988 Monthly Report, Equipment Evaluation Phase IV

46. In Situ Bioremediation Demonstration French Limited March, 1988 Monthly Report, Equipment Evaluation Phase IV

47. In Situ Bioremediation Demonstration French Limited April, 1988 Monthly Report, Equipment Evaluation Phase IV

48. In Situ Biodegradation Demonstration French Limited May/June 1988 Monthly Report, Equipment Evaluation Phase IV

49. In Situ Bioremediation Demonstration French Limited July, 1988 Monthly Report, Equipment Evaluation Phase IV

50. In Situ Bioremediation Demonstration French Limited August, 1988 Monthly Report, Equipment Evaluation Phase IV

51. In Situ Bioremediation Demonstration French Limited September, 1988 Monthly Report, Equipment Evaluation Phase IV

52. Supplemental Biodegradation Equipment Evaluation French Limited Site - Phase IV, September 26, 1988

53. In Situ Biodegradation Demonstration Phase III Quality Assurance Project Plan for French Limited Site, March, 1987

54. Addendum to Quality Assurance Project Plan for the French Limited Site In Situ Biodegradation Demonstration Phase III, February 16, 1990

55. Site Safety and Health Plan French Limited Site - Phase III, April 1987 (Revision 2)

56. Remedial Action Plan Volume I - April, 1990

57. Remedial Action Plan Volume I - September, 1990 (Updated from April, 1990)

58. Remedial Action Plan Volume II Quality Assurance April, 1990

59. Remedial Action Plan Volume II Quality Assurance September, 1990 (Updated from April 1990) Revised June 3, 1991

60. Remedial Action Plan Volume II Quality Assurance June, 1990 Appendix A - Quality Assurance Sampling Procedures and Appendix B - Analytical Methods - B.1 - B.53, September 22, 1989 Revised September 28, 1990

61. Remedial Action Plan Volume III - Health and Safety, July 20, 1990

62. Remedial Action Plan Volume IV - Spill and Volatile Organic Release Contingency Plan (April 6, 1990)

63. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, May, 1990
Page v.i.3 Missing

64. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990, (Updated from May, 1990)

65. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume I, February 1,1990

66. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume II, February 1, 1990

67. 1988 Slough Investigation Report French Limited Site, October 1988

68. Ambient Air Impact Risk Assessment Report, May 5, 1989

69. Workplan for the Shallow Aquifer Pumping Tests for the French Limited Site, July 22, 1988
Page 80 Missing

70. French Limited Site Hurricane Gilbert Preparation Report, October, 1988

71. Potable Water Well Installation Report French Limited Site, December 7, 1988

72. Bioresidue Fixation Alternatives Evaluation Report French Limited Site March 20, 1989

73. Hydrogeologic Characterization Report, March 1989

74. Hydrogeologic Characterization Report - Appendices, March 1989

75. San Jacinto River May 19, 1989 Flood Event Report, June 1989

76. Post San Jacinto River May 1989 Flood Event Soils and Water Analysis Program - Volume I, August 16, 1989

77. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume II Appendix A

78. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume III Appendix A, August 16, 1989

79. Riverdale Lake Area Remediation Program August 15, 1989

80. Flood and Migration Control Wall Design Report, August 16, 1989

81. Flood and Migration Control Wall Design Report Appendix C Access Way Design, September, 1989

82. North Pit Remediation Report French Limited Site, November 6, 1989

83. Installation Report for Flood and Migration Control Wall, January 8, 1990

84. Installation Report for Flood and Migration Control Wall
Appendix A - ENSR Site Logs

85. Installation Report for Flood and Migration Control Wall
Appendix B - Inspection Reports

86. Installation Report for Flood and Migration Control Wall Appendix C - Pile Driving Inspection Report January 8, 1990

87. Flood Wall Gate Test Report French Limited Site, February 1990

88. French Limited Remediation Design Report - Executive Summary Bioremediation/Shallow Aquifer, July, 1991

89. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume I of III - Summary Report and Appendices A-H, July 1991

90. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume II of III - Appendices I-M, June 1991

91. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume III of III - Appendices N-P, June 1991

92. Bioremediation Facilities Design Report Volume II of IV Appendices, Reports and Calculations (March 20, 1991)

93. Bioremediation Facilities Design Report Volume III of IV
Appendix E - Design Specifications (March 20, 1991)

94. Bioremediation Facilities Design Report Volume IV of IV - Air Monitoring, March 20, 1991

95. Public Health Assessment for French Limited March 30, 1993 from U.S. Department of Health and Human Services

96. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 1, Report, Appendices A-E

97. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 2, Appendix F

98. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 3, Appendix F continued

99. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 4, Appendix G

100. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 5, Appendix H

101. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 6, Appendix H continued

102. Record of Public Meeting Regarding Remedial Investigation and Feasibility Study (5-21-87)

103. Summary of Remedial Alternative Selection 1988

104. Declaration for the Record of Decision 1988

105. Record of Public Meeting Regarding Remedial Investigation and Feasibility Study (2-11-88) (Updated from June 21, 1987)

106. Consent Decree between the Federal Government and the FLTG

107. French Limited Superfund Site Community Relations Revised Plan August, 1989 - Jacob's Engineering

108. Results of the French Limited Task Group Survey (Goldman and Company) April, 1987

109. Goldman Public Relations Clipping Report

110. BioGEE International, Inc., Project Report Biotreatability Study Using Isolated Indigenous Organisms, April, 1994

111. Field Evaluation of Biodegradation at the French Limited Site (Phase II) Volume I

112. Laboratory Evaluation of Biodegradation at the French Limited Site

113. French Limited Site Focused Feasibility Study (May 1987)

114. Annual Groundwater Monitoring Report, December 1993, Report and Appendices A-B

115. Annual Groundwater Monitoring Report, December 1993, Appendices C-H

116. DNAPL Study Remedial Alternative Selection and Feasibility Study Report, November 1994

117. Cell E and Cell D/F Remediation Verification Report

118. French Limited Wetlands Mitigation, Final Site Restoration Plan

119. French Limited Wetlands Mitigation, Site Selection Report

120. French Limited Wetlands Mitigation, 404 and 401 Permit Application, U.S. Army Corps of Engineers, Galveston, TX

121. Quality Assurance Report, February 15, 1993, Report No. QA93003

122. Quality Assurance Report, January 20, 1994, Report No. QA94001

123. Monthly Progress Report, January 1992

124. Monthly Progress Report, January, 1992 Appendices A-C

125. Monthly Progress Report, January, 1992 Appendices E, F

126. Monthly Progress Report, January, 1992 Appendices G

127. Monthly Progress Report, February, 1992

128. Monthly Progress Report, February, 1992 Appendices A-B

129. Monthly Progress Report, February, 1992 Appendices C 1, C 2

130. Monthly Progress Report, February, 1992 Appendices D-E

131. Monthly Progress Report, March, 1992

132. Monthly Progress Report, March, 1992, Appendix A

133. Monthly Progress Report, April, 1992

134. Monthly Progress Report, April, 1992, Appendices A-B

135. Monthly Progress Report, May, 1992

136. Monthly Progress Report, May, 1992, Appendices A-B

137. Monthly Progress Report, June, 1992

138. Monthly Progress Report, June, 1992, Appendices A-B

139. Monthly Progress Report, July 1992

140. Monthly Progress Report, July 1992, Appendices A-B

141. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 1 of 3

142. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 2 of 3

143. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 3 of 3

144. Monthly Progress Report, August, 1992

145. Monthly Progress Report, August, 1992, Appendices A-B

146. Monthly Progress Report, September, 1992

147. Monthly Progress Report, September, 1992, Appendices A-B

148. Monthly Progress Report, October, 1992

149. Monthly Progress Report, October, 1992, Appendices A-B

150. Monthly Progress Report, November, 1992

151. Monthly Progress Report, November, 1992 Appendices A-B

152. Monthly Progress Report, December, 1992

153. Monthly Progress Report, December, 1992 Appendices A, B

154. Monthly Progress Report, January, 1993

155. Monthly Progress Report, February, 1993

156. Monthly Progress Report, March, 1993

157. Monthly Progress Report, April, 1993

158. Monthly Progress Report, May, 1993

159. Monthly Progress Report, June, 1993

160. Monthly Progress Report, July, 1993

161. Monthly Progress Report, August, 1993

162. Monthly Progress Report, September, 1993

163. Monthly Progress Report, October, 1993

164. Monthly Progress Report, November, 1993

165. Monthly Progress Report, December, 1993

166. Monthly Progress Report, January, 1994

167. Monthly Progress Report, February, 1994

168. Monthly Progress Report, March, 1994

169. Monthly Progress Report, April, 1994

170. Monthly Progress Report, May, 1994

171. Monthly Progress Report, June, 1994

172. Monthly Progress Report, July, 1994

173. Monthly Progress Report, August, 1994

174. Monthly Progress Report, September, 1994

175. Monthly Progress Report, October, 1994

176. Monthly Progress Report, November, 1994

177. Monthly Progress Report, December, 1994

At the Crosby library...

1. Remedial Investigation Report - June, 1986

2. Remedial Investigation Appendices Volume I June, 1986 Revised from Feb. 1986

3. Remedial Investigation Appendices Volume II June, 1986 Revised from Feb. 1986

4. Remedial Investigation Appendices Volume III February, 1986
   Pages 1 and 2 of 10 Res. Engr Tab Missing
   Analytical Report Worksheet 7-8-9-10 Missing
   Pages 1 and 2 of 6 Missing
   Tab 9 H 1-8 Missing, H 11-19 Missing, Page 1 of 10 Missing
   Page 3 Worksheet Missing
   Tab 10 H 1-3 Missing, Page 3-6 of 6 Missing, Page 1-6 Missing
   Tab 12 Page 2-10 of 10 Missing

5. 1986 Field Investigation and Supplemental Remedial Investigation Report Volume I, December, 1986

6. 1986 Field Investigation and Supplemental Remedial Investigation Report Volume II, Appendices, December 1986

7. 1986 Field Investigation Hydrology Report, December 19, 1986

8. Feasibility Study Report, March 1987

9. Feasibility Study Report, March 1987

10. French Limited Site Focused Feasibility Study, May 1987

11. Endangerment Assessment Report February 1987

12. Endangerment Assessment Report April 1987

13. Endangerment Assessment Report April 1987

14. In Situ Biodegradation Demonstration Report Volume I Executive Summary October, 1987 (Revised 12-15-87)

15. In Situ Biodegradation Demonstration Report Volume II October 30, 1987

16. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume I, November 30, 1987
    Missing Supplements to 5-6 and 7 to 10

17. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume II, November 30, 1987 + Appendices

18. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume III, November 30, 1987 + Appendices

19. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume IV, November 30, 1987 -Appendices

20. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume V - Appendices, November 30, 1987

21. Results of the French Limited Task Group Survey (Goldman and Company) April 1987

22. Goldman Public Relations Clipping Report

23. Consent Decree between the Federal Government and the FLTG

24. Consent Decree between the Federal Government and the FLTG

25. Laboratory Evaluation of Biodegradation at the French Limited Site, December 1986.

26. Field Evaluation of Biodegradation at the French Limited Site (Phase II) Volume I, March, 1987

27. Bioremediation Facilities Design Report Volume II of IV Appendices, Reports and Calculations March 20, 1991

28. Bioremediation Facilities Design Report Volume III of IV Appendix E - Design Specifications March 20, 1991

29. Bioremediation Facilities Design Report Volume IV of IV Air Monitoring, March 20, 1991

30. Remedial Action Plan Volume I, September 28, 1990

31. Remedial Action Plan Volume II - Quality Assurance, Revised June 3, 1991

32. Remedial Action Plan Volume II - Appendix A - Quality Assurance Sampling Procedures and Appendix B - Analytical Methods - B.1 - B.53, September 28, 1990

33. Remedial Action Plan Volume III - Health and Safety, July 20, 1990

34. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990

35. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990

36. Hydrogeologic Characterization Report, March 1989

37. Hydrogeologic Characterization Report Appendices, March 1989

38. Supplemental Biodegradation Equipment Evaluation French Limited Site - Phase IV, September 26, 1988

39. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume I, February 1, 1990

40. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume II, February 1, 1990

41. Site Safety and Health Plan French Limited Site - Phase III, April 1987 (Revision 2)

42. San Jacinto River May 19, 1989 Flood Event Report, June 1989

43. Post San Jacinto River May 1989 Flood Event Soils and Water Analysis Program Volume I, August 16, 1989

44. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume II, Appendix A

45. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume III, Appendix A, August 16, 1989

46. 1988 Slough Investigation Report French Limited Site, October 1988

47. Flood and Migration Control Wall Design Report, August 16, 1989

48. Flood and Migration Control Wall Design Report (Flood is spelled incorrectly on Volume Cover) + Appendix C - Access way Design September 1989

49. Installation Report for Flood and Migration Control Wall January 8, 1990

50. Installation Report for Flood and Migration Control Wall
Appendix A - ENSR Site Logs

51. Installation Report for Flood and Migration Control Wall
Appendix B - Inspection Reports

52. Installation Report for Flood and Migration Control Wall
Appendix C - Pile Driving Inspection Report January 8, 1990

53. Flood Wall Gate Test Report French Limited Site, February 1990

54. North Pit Remediation Report French Limited Site, November 6, 1989

55. Workplan for the Shallow Aquifer Pumping Tests for the French Limited Site, July 22, 1988
(Additional Title - Pumping Test Program for Shallow Alluvial Aquifer Zone)

56. French Limited Site Hurricane Gilbert Preparation Report October, 1988

57. Riverdale Lake Area Remediation Program, August 15, 1989

58. Addendum to Quality Assurance Project Plan for the French Limited Site In Situ Biodegradation Demonstration Phase III, February 16, 1990

59. Potable Water Well Installation Report French Limited Site, December 7, 1988

60. Bioresidue Fixation Alternatives Evaluation Report French Limited Site March 20, 1989

61. Ambient Air Impact Risk Assessment Report, May 5, 1989

62. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume I of III - Summary Report and Appendices A-H, July 1991

63. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume II of III - Appendices I-M, June 1991

64. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume III of III - Appendices N-P, June 1991

65. French Ltd. Remediation Design Report Executive Summary Bioremediation Shallow Aquifer July 1991

66. BioGEE International, Inc., Project Report Biotreatability Study Using Isolated Indigenous Organisms, April 15, 1994

67. Black EPA Binder

68. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 1, Report, Appendices A-E

69. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 2, Appendix F

70. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 3 Appendix F continued

71. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 4, Appendix G

72. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 5, Appendix H

73. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 6, Appendix H continued

74. Equipment Evaluation Phase IV Report November, 1987 Monthly Report

75. Equipment Evaluation Phase IV Report December, 1987 Monthly Report

76. Microfiche Field Reports 1988 -small box

77. Annual Groundwater Monitoring Report, December 1993, Report and Appendices A-B

78. Annual Groundwater Monitoring Report, December 1993, Appendices C-H

79. DNAPL Study Remedial Alternative Selection and Feasibility Study Report, November 1994

80. Cell E and Cell D/F Remediation Verification Report

81. French Limited Wetlands Mitigation, Final Site Restoration Plan

82. French Limited Wetlands Mitigation, Site Selection Report

83. French Limited Wetlands Mitigation, 404 and 401 Permit Application, U.S. Army Corps of Engineers, Galveston, TX

84. Quality Assurance Report, February 15, 1993, Report No. QA93003

85. Quality Assurance Report, January 20, 1994, Report No. QA94001

86. Monthly Progress Report, January, 1992

87. Monthly Progress Report, January, l992, Appendices A-C

88. Monthly Progress Report, January, 1992, Appendices E-F

89. Monthly Progress Report, January, 1992, Appendix G

90. Monthly Progress Report, February, 1992

91. Monthly Progress Report, February, 1992, Appendices A-B

92. Monthly Progress Report, February, 1992, Appendices C-1, C-2

93. Monthly Progress Report, February, 1992 , Appendices D-E

94. Monthly Progress Report, March, 1992

95. Monthly Progress Report, March, 1992, Appendix A

96. Monthly Progress Report, April, 1992

97. Monthly Progress Report, April, 1992, Appendices A-B

98. Monthly Progress Report, May, 1992

99. Monthly Progress Report, May, 1992, Appendices A-B

100. Monthly Progress Report, June, 1992

101. Monthly Progress Report, June, 1992, Appendices A-B

102. Monthly Progress Report, July, 1992

103. Monthly Progress Report, July, 1992, Appendices A-B

104. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 1 of 3

105. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 2 of 3

106. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 3 of 3

107. Monthly Progress Report, August, 1992

108. Monthly Progress Report, August, 1992, Appendices A-B

109. Monthly Progress Report, September, 1992

110. Monthly Progress Report, September, 1992, Appendices A-B

111. Monthly Progress Report, October, 1992

112. Monthly Progress Report, October, 1992, Appendices A-B

113. Monthly Progress Report, November, 1992

114. Monthly Progress Report, November, 1992, Appendices A-B

115. Monthly Progress Report, December, 1992

116. Monthly Progress Report, December, 1992, Appendices A-B

117. Monthly Progress Report, January, 1993

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136. Monthly Progress Report, August, 1994

137. Monthly Progress Report, September, 1994

138. Monthly Progress Report, October, 1994

139. Monthly Progress Report, November, 1994

140. Monthly Progress Report, December, 1994

12 Large Brown Folders:

1. Administrative Record Index - 2 folders
   Administrative Record 09-26-79 thru 05-29-83
   Administrative Record 06-03-83 thru 11-28-83
   Administrative Record 02-28-84
   Administrative Record 03-09-84
   Technical Comments on Remediation Investigation Report 2-84
   Supplemental Investigation - Resource Engr. 1-84
   Administrative Record 3-9-84

2. Administrative Record 08-31-84
   Administrative Record 10-29-84 thru 01-22-85

French Ltd. Technical and Regulatory Concepts for In-Place Closure, 09-84
Supplementary Investigation, May 1984
French Ltd. Field Activities Work Plan, February 1985
Supplementary Investigation Attachments, May 1985

3. Administrative Record 02-04-85
Remedial Investigation, Vol. I Report, April 1985
Remedial Investigation, Vol. II Appendices, April 1985

4. Administrative Record 04-08-85 thru 11-26-85
Administrative Record 02-14-86 thru 04-04-86
Technical Report for Resource Engineering, 12-03-85
Appendix QA Program for French Ltd., 12-18-85
1985 Field Investigation Report Appendices, January, 1986
1985 Field Investigation Report , January, 1986

5. Administrative Record 04-01-86
Remedial Investigation Report Appendices, Vol. II, April, 1986

6. Administrative Record 4-1-86

7. Administrative Record 05-08-86 thru 05-12-86
Administrative Record 06-01-86
Administrative Record 01-05-87
Remedial Investigation Report, June 1986
Laboratory Evaluation of Biodegradation, 12-86
1986 Field Investigation Hydrology Report, 12-86
Endangerment Assessment Report, 2-87

8. Feasibility Study, March 1987

9. Administrative Report 03-11-87 thru 03-25-87
Administrative Report 4-1-87
Administrative Report 4-7-87
In Situ Biodegradation Demonstration Phase III QA Project Plan 3-87
Endangerment Assessment Report, 4-87
Proposed In Situ Biodegradation Demonstration French Limited Site Phase III 4-87

10. Administrative Report 4-15-87 thru 5-l-87
Administrative Report 5-21-87 thru 7-2-87
French Limited Focused Feasibility Study, ERT 5-87
Revised Field Evaluation of Biodegradation at French Site Phase II Vol. I
-Revised 7-10-87

11. Administrative Report 7-20-87 - 11-23-87

Administrative Report Undated Documents 000122-000134
In Situ Biodegradation Demonstration Report Vol. I Executive Summary 10-87
French Limited Site Work Plan Vol. I Project Activities and Sample Plan

12. Texas Air Control Board Regulations I thru IX
Standard Exemption List
Application for Permit

During the month of January, the status of both libraries have been reviewed and the above information found to be accurate.

9.0 WETLANDS RESTORATION

9.1 Summary of Activities and Progress

Conducted safety meetings at the start of each work shift; inspected all equipment for safety compliance each shift; used daily lottery ticket safety awareness program.

Updated site work plan based on field progress.

Revised flow channel location to incorporate existing elevation features and to reduce the scope of the excavation work.

Requested lump sum bids for the three bridges.

Maintained site security to protect the public and project equipment.

Modified excavation plan to save good vegetation; salvaged useful vegetation.

Developing a public relations plan.

Reviewed the project status, progress, and issues with the agency review committee; the agencies are satisfied with site progress.

Dewatered the site initially; some dewatering was required after each significant rainfall; frequent heavy rains delayed the excavation work on site; excavated about 40% of the flow channels.

9.2 Problem Areas and Solutions

Problem	Solution
Trees in excavation area.	Transplant desirable trees to temporary nursery area; treat large trees with nutrients.
Water inflow to site.	Seal culverts; secure sewer lines and stormwater lines; periodic pumping.
Safety awareness	Daily safety meeting; lottery ticket program; frequent equipment inspections.
Excavation in wet, soft areas.	Revise work schedule to allow drainage; pump water on "off" days.

9.3 Problems Resolved

None.

9.4 Deliverables Submitted

December, 1994, Monthly Report.

9.5 Upcoming Events and Activities

Daily safety program.

Continue civil work on site.

Excavate and save topsoil.

Contour site.

Develop detailed cost estimate for Brownwood.

Develop re-vegetation plan.

Develop forecast of maintenance requirements.

Develop community relations plan.